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File Date:	4/7/05
60th Day:	6/6/05
75th Day:	6/21/05
Extended to:	8/12/05
Commission Meeting:	8/11/05

STAFF REPORT AND RECOMMENDATION ON CONSISTENCY DETERMINATION

Consistency Determination No.: **CD-051-05**

Federal Agency: **U.S. Department of the Interior's Minerals Management Service**

Project Location: Outer Continental Shelf (OCS) lease suspension (i.e., extension of the lease term) by 13 months, for the leases in the Cavern Point Unit (lease numbers OCS-P 0210, and OCS-P 0527), located in federal waters, eastern Santa Barbara Channel, north of Anacapa Island, offshore Ventura County. (Exhibits 2-3)

Project Description: Grant a Suspension of Production (i.e., lease extension) for 13 months to Venoco, Inc. No suspension period physical activities are proposed. Potential post-suspension activities include drilling two new exploratory and ten new production wells from existing Platform Gail. The oil and gas would be transported to shore using existing pipelines and processed at the existing Carpinteria onshore processing facility.

Substantive File Documents: See Exhibit 1

EXECUTIVE SUMMARY

The U.S. Department of the Interior, Minerals Management Service (MMS) has submitted a consistency determination for a 13-month Outer Continental Shelf (OCS) lease suspension (i.e., extension of the lease term), for the leases in the Cavern Point Unit, north of Anacapa Island in the eastern Santa Barbara Channel (lease numbers OCS-P 0210, and OCS-P 0527). Venoco, Inc., is the operator of the Unit. No in-water activities are proposed during the suspension period for this unit, and MMS maintains that any subsequent oil and gas drilling and transportation would occur using Platform Gail and the oil and gas pipelines to shore, and thus that any development of the Unit would only occur using existing oil and gas infrastructure.

Based on the decision of the U.S. District Court in the case of *State of California v. Norton* (affirmed by the U.S. Court of Appeal, Ninth Circuit), the lease suspension is subject to the consistency review requirements of section 307(c) of the Coastal Zone Management Act (CZMA). This Cavern Point suspension is one of ten MMS has submitted to the Commission.

The court decision clarified that the Commission's review of a lease suspension is similar to its review of a lease sale in the sense that the Commission is to analyze the broad and long-term coastal effects (i.e., post-suspension exploration, development and production activities) that are reasonably foreseeable if a lease suspension is granted. The court nevertheless acknowledged, and the Commission agrees, that a lease suspension is not identical to a lease sale. The subject lease suspensions have been requested decades after the initial lease sale, after most of these leases have been explored and detailed environmental and technical evaluations have already been performed. Substantially more information and details are available now on these leases than were available at the original lease sale stage.

In an April 22, 2005, letter to MMS, the Commission staff requested additional information regarding the "reasonably foreseeable direct and indirect effects" of the requested suspensions, namely, the likely post-suspension exploration, development, and production activities. The Commission staff informed MMS that additional information is needed in order for the Commission to determine whether the proposed lease suspensions are consistent with the enforceable policies of the California Coastal Management Program (CCMP). The Commission staff requested, for example, that MMS estimate how the future development of the Cavern Point Unit might extend the life of existing Platform Gail, its pipelines, and the onshore processing facility in Carpinteria. MMS has provided scant information in response, and MMS believes most of the information the Commission staff requested was more appropriate for exploration and production review stages, rather than for a review of the lease suspensions themselves.

Platform Gail is located in the Santa Clara Unit, adjacent to and directly east of the Cavern Point Unit, on OCS-P 0205. Both exploration and production activities on this lease were controversial and involved extensive Commission review and analysis. The Commission twice objected to Chevron's consistency certifications for Platform Gail; however, through a settlement agreement, the project was ultimately authorized. Chevron installed the platform in 1987 and began producing oil in 1988. At that time Chevron estimated the Platform have a lifespan of 32 years.

Primary concerns were the site's proximity to vessel traffic lanes and to the Channel Islands National Marine Sanctuary and Anacapa Island (raising both habitat and visual/recreational concerns), as well as geologic hazards. The project was 2,053 feet from the northern buffer zone of the northbound Vessel Traffic Separation Scheme (VTSS) lane, 6.5 miles from the Channel Islands National Park and a major nesting area for the endangered brown pelican (Anacapa Island), and one half mile from the Channel Islands National Marine Sanctuary. In addition, both Platform Gail and the pipeline to Platform Grace were installed over geologically unstable areas.

Primary concerns raised by the proposed suspension, and reasonably foreseeable further development using the platform, pipelines, and onshore facilities, are: (1) whether the reasonably foreseeable additional development would extend the life of the existing infrastructure, and if so, whether any such extension of life of the facilities would be consistent with the enforceable Coastal Act policies; and (2) whether new circumstances have arisen (such as increased oil spill risk from aging facilities, changed geologic conditions, new or changed fishing practices in the area, and the implementation of Marine Protected Areas near the platform) that need to be addressed before authorizing the suspension and determining its consistency with the enforceable policies of the CCMP. In order to determine the project's consistency with the CCMP, the Commission has requested MMS to provide it with the following necessary information:

1. An analysis of the structural integrity, and, if it would be extended, the likely modified design life if the Cavern Point Unit is developed, for: (1) the pipelines from Platform Gail to Grace, which is newer but crosses an underwater landslide; (2) the older (18-year old) pipeline from Platform Grace to shore; and (3) the 46-year-old onshore processing facility in Carpinteria.
2. If the analysis in #1 establishes that the project would extend the life of Platform Gail and its associated pipelines, analysis of the current level of commercial and recreational fishing that would be affected.
3. An analysis of the structural integrity of Platform Gail and its associated pipelines, including but not limited to copies of the most recent tests MMS has conducted on Platform Gail, and on the pipelines from Platform Gail to Grace and from Grace to shore.
4. An analysis of the ability of onshore facilities in Carpinteria to process Cavern Point petroleum hydrocarbons, to enable a determination of, among other things, whether that onshore facility remains suitable, or if an increased risk to public safety makes other locations more appropriate. This analysis should include an explanation of whether the onshore facility would exceed permitted throughput limits if oil and gas production to which this suspension, if granted, may result in, occurs (and/or whether sufficient offshore processing that previously took place at Platform Grace has been relocated to occur at Platform Gail).
5. To evaluate potential impacts from an oil spill to coastal resources, detailed information on: (1) worst case discharge volumes; (2) oil spill probabilities; and (3) oil spill trajectories.

Without this information, the Commission is unable to determine whether or not the proposed project is consistent with the marine resources, water quality, oil spills, commercial fishing, geologic

hazards, visual, and recreation policies (Sections 30230, 30231, 30232, 30234.5, 30253, 30262(a)(1), 30251, and 30213) of the Coastal Act, because it lacks the information necessary to make these determinations. In addition, while development at this unit would be subject to the provisions of the coastal-dependent industrial "override" policy (Section 30260) of the Coastal Act, the lack of the above-identified information also makes it impossible for the Commission to make the necessary findings under that policy. The Commission therefore objects to MMS' consistency determination, based on lack of adequate information to determine the suspension's consistency with the enforceable policies of the CCMP/Coastal Act.

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1 STAFF RECOMMENDATION

1.1 Motion and Resolution

Motion:

*I move that the Commission **concur** with consistency determination CD-051-05 that the project described therein is consistent to the maximum extent practicable with the enforceable policies of the California Coastal Management Program.*

Staff Recommendation:
Staff recommends a **NO** vote on the motion. Failure of this motion will result in an objection to the determination and adoption of the following resolution and findings. An affirmative vote of a majority of the Commissioners present is required to pass the motion.

Resolution to Object to Consistency Determination:

*The Commission hereby **objects** to the consistency determination by the Minerals Management Service for the proposed project, finding that the consistency determination lacks information necessary to evaluate the project's consistency with the California Coastal Management Program.*

1.2 Applicable Legal Authorities

Section 307 of the Coastal Zone Management Act (16 USC § 1456) provides in part:

(c)(1)(A) Each Federal agency activity within or outside the coastal zone that affects any land or water use or natural resource of the coastal zone shall be carried out in a manner which is consistent to the maximum extent practicable with the enforceable policies of the approved State management programs.

1.2.1 Necessary Information

Section 930.43(b) of the federal consistency regulations (15 CFR Section 930.43(b)) requires that, if the Commission bases its objection on a lack of information, the Commission must identify the information necessary for it to assess the project's consistency with the CCMP. That section states:

If the State agency's objection is based upon a finding that the Federal agency has failed to supply sufficient information, the State agency's response must describe the nature of the information requested and the necessity of having such information to determine the

consistency of the Federal agency activity with the enforceable policies of the management program.

Nature of Information Requested

As described in Section 3: Coastal Act Issues of this report below, the Commission finds this consistency determination lacks the information that the Commission has requested from the Minerals Management Service ("MMS") to enable the Commission to determine whether the proposed project is consistent with the marine resources, water quality, oil spills, commercial fishing, geologic hazards, visual, public access, and recreation policies (Sections 30230, 30231, 30232, 30234.5, 30253, 30262(a)(1), 30251, and 30213) of the Coastal Act. In order to determine the project's consistency with the CCMP, the Commission has requested MMS to provide it with the following necessary information:

1. An analysis of the structural integrity, and, if it would be extended, the likely modified design life if the Cavern Point Unit is developed, for: (1) the pipelines from Platform Gail to Grace, which is newer but crosses an underwater landslide; (2) the older (18-year old) pipeline from Platform Grace to shore; and (3) the 46-year-old onshore processing facility in Carpinteria.
2. If the analysis in #1 establishes that the project would extend the life of Platform Gail and its associated pipelines, analysis of the current level of commercial and recreational fishing that would be affected.
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5. To evaluate potential impacts from an oil spill to coastal resources, the Commission has requested detailed information on: (1) worst case discharge volumes; (2) oil spill probabilities; and (3) oil spill trajectories.

Necessity for Information Requested

The need for this information is explained in the findings below, as follows:

Information request No.1 – see pages 49-56, Commercial Fishing (Section 3.2), Visual and Recreation (Section 3.3), and Geologic Hazards (Section 3.4).
Information request No. 2 – see pages 49-52, Commercial Fishing (Section 3.2).
Information request No. 3 – see pages 53-56, Geologic Hazards (Section 3.4).
Information request No. 4 – see page 56, last paragraph, Geologic Hazards (Section 3.4).
Information request No. 5 – see pages 26-47, Oil Spill Risk Analysis (in Section 3.1.1).

In addition, as discussed on pages 60-61 (Coastal Dependent Industrial Facility "Override" Provision (Section 3.9)), all five information requests are necessary for the Commission's analysis under Section 30260 of the Coastal Act.

1.2.2 Practicability

The federal consistency regulations implementing the CZMA include the following provision:

> *Section 930.32 Consistent to the maximum extent practicable.*
>
> *(a)(1) The term ''consistent to the maximum extent practicable'' means fully consistent with the enforceable policies of management programs unless full consistency is prohibited by existing law applicable to the Federal agency.*

Since MMS has raised no issue of practicability, as so defined, the standard before the Commission is full consistency with the policies of the California Coastal Management Program (CPRC §§ 30200-30265.5) .

1.2.3 Federal Agency Response to Commission Objection.

Section C(a)(i) of Chapter 11 of the CCMP requires federal agencies to inform the Commission of their response to a Commission objection. This section provides:

> *If the Coastal Commission finds that the Federal activity or development project ... is not consistent with the management program, and the federal agency disagrees and decides to go forward with the action, it will be expected to (a) advise the Coastal Commission in writing that the action is consistent, to the maximum extent practicable, with the coastal management program, and (b) set forth in detail the reasons for its decision. In the event the Coastal Commission seriously disagrees with the Federal agency's consistency determination, it may request that the Secretary of Commerce seek to mediate the serious disagreement as provided by Section 307(h) of the CZMA, or it may seek judicial review of the dispute.*

The federal consistency regulations reflect a similar obligation; 15 CFR §930.43 provides:

> ***State agency objection.*** *…*
>
> *(d) In the event of an objection, Federal and State agencies should use the remaining portion of the 90-day notice period (see §930.36(b)) to attempt to resolve their differences. If resolution has not been reached at the end of the 90-day period, Federal agencies should consider using the dispute resolution mechanisms of this part and postponing final federal action until the problems have been resolved. At the end of the 90-day period the Federal agency shall not proceed with the activity over a State agency's objection unless: (1) the Federal agency has concluded that under the ''consistent to the maximum extent practicable'' standard described in section 930.32 consistency with the enforceable policies of the management program is prohibited by existing law applicable to the Federal agency and the Federal agency has clearly described, in writing, to the State agency the legal impediments to full consistency (See §§930.32(a) and 930.39(a)), or (2) the Federal agency has concluded that its proposed action is fully consistent with the enforceable policies of the management program, though the State agency objects.*
>
> *(e) If a Federal agency decides to proceed with a Federal agency activity that is objected to by a State agency, or to follow an alternative suggested by the State agency, the Federal agency shall notify the State agency of its decision to proceed before the project commences.*

1.3 Standard of Review

The standard of review for federal consistency determinations is the enforceable policies of the CCMP, of which the substantive policy component is the Chapter 3 policies of the Coastal Act.

2 FINDINGS AND DECLARATIONS

The Commission finds and declares as follows:

2.1 Introduction

Venoco, Inc., has submitted a request to the Minerals Management Service ("MMS") for a 13-month suspension[1] of undeveloped Outer Continental Shelf ("OCS") oil and gas leases (OCS-P 0210, and OCS-P 0527) that comprise the Cavern Point Unit. The Cavern Point Unit is located offshore Ventura County, approximately 6 miles north of the east side of Santa Cruz Island and the west side of Anacapa Island. See Exhibits 2-3.

Pursuant to section 307(c) of the CZMA, 16 USC §1456(c)(1), the MMS's review and approval of the operator's requested lease suspensions is a federal agency activity subject to Commission consistency review. Accordingly, on April 7, 2005, MMS provided the Coastal Commission

[1] A suspension is defined in 30 CFR § 250.105 as: "a granted or directed deferral of the requirement to produce (Suspension of Production) or to conduct leaseholding operations (Suspension of Operations)." A lease suspension is effectively an extension of the life of the lease. (30 CFR § 250.169(a)) See Section 2.3 of this report, below.

with a consistency determination (CD-051-05) in response to the operator's request for lease suspensions.

This report is one of four Commission staff reports prepared to review the consistency determinations submitted by MMS for 36 OCS lease suspensions. Other Commission reports address lease suspension requests for the Gato Point, Bonito, Rocky Point, Sword, Northern Santa Maria Basin units and OCS-P 0409, discussed in more detail in Section 2.3 below.

Before any drilling or development activity can actually occur in the subject units, Exploration and Development and Production Plans must also be separately approved by MMS (pursuant to 30 CFR §§ 250.203, 250.204). MMS can not approve any such further activity unless the Commission concurs with a consistency certification from the operator, or the Secretary of Commerce determines on appeal of a Commission objection that the activity is consistent with the objectives or purposes of the CZMA, or is necessary in the interest of national security (15 CFR §930.120).

The goal of the oil and gas operators, beyond the requested suspension period, is to explore, develop, and produce marketable quantities of oil and gas from reservoirs underlying the Cavern Point Unit.

2.2 Background of Federal OCS Leases

2.2.1 Coastal Commission Review of Lease Suspensions

MMS has submitted consistency determinations for a total of 36 lease suspensions off the coast of San Luis Obispo, Santa Barbara and Ventura Counties. The leases are organized into nine separate "units," and one lease not within a unit (Lease 409).[2] (See Section 2.2.3: Current OCS Operations in California below.)

Each lease was issued by the US Department of the Interior before 1984, and had a primary term of five years[3]. After the initial term of a lease lapses, the lease continues in effect so long as oil and gas are produced in paying quantities or drilling operations are underway. If production or approved drilling is not underway at the end of the lease term, the lease expires and the lessee loses the right to exploit the oil and gas resources in the lease area (30 CFR § 250.180).

[2] Consistent with the Outer Continental Shelf Lands Act (as amended) ("OCSLA"), MMS's regulations define the purpose of unitization to include 1) conserving natural resources; (2) preventing waste; and/or (3) protecting correlative rights (30 CFR § 250.1300).

[3] MMS has not conducted a lease sale off the coast of California since 1984. See Appendix A for details on the lease sales conducted since 1963, including those sales relevant to the 36 subject leases. In 1990, former President George H. W. Bush, imposed a leasing moratorium offshore California, among other areas. President Bush imposed the moratorium in response to findings by the National Research Council that environmental information was inadequate to properly inform leasing offshore Florida and California.

Alternatively, a lease may be "suspended." A suspension allows a lessee to suspend exploration, development, and/or production activities for a period of time without having the lease expire, thereby extending the life of the lease (OCSLA § 5(a)(1); 43 USC §1334(a)(1)). Suspensions can occur in two ways: first, the federal government can direct suspensions; for example, in order to comply with federal law or with court orders. Second, a lessee can request a suspension in order to keep the lease in effect under certain conditions specified in regulation without the lessee having to engage in exploration, development or production activities (30 CFR §§ 250.168-177). During a directed suspension, no activities can occur. During a granted suspension, MMS can require that certain specified activities and milestones be met in order to demonstrate that the lessee intends to keep the lease from expiring.

Of the leases issued before 1984, 40 have not begun producing paying quantities of oil or gas. Additionally, a portion of Lease OCS-P 0450 that is assigned to the undeveloped Bonito Unit has not begun producing quantities of oil and gas. These leases would have expired if MMS had not repeatedly extended the terms of the leases, through both directed and requested suspensions.

Until October 1992, MMS, at the request of the lessees, had granted suspension of the 40 leases. On October 15, 1992, MMS directed suspensions of the leases in order to conduct the *California Offshore Oil and Gas Energy Resources Study: Development Scenarios and Onshore Physical Infrastructure in the Tri-County Area of San Luis Obispo, Santa Barbara and Ventura* (known as the "COOGER Study"). In 1999, when the directed suspensions were about to end, MMS advised the lessees that they would need to request suspensions in order to keep the leases from expiring. In May 1999, the lessees submitted requests for suspensions. MMS declined to extend the lease terms of four of the leases[4], but approved the requested suspensions for the remaining 36 leases.

By letter dated July 27, 1999, the Coastal Commission informed the Department of Interior and MMS that, pursuant to the Coastal Zone Management Act (CZMA), 16 USC §1456(c)(3), the Commission was asserting its authority to review the lease suspensions for consistency with the California Coastal Management Program (CCMP). In an August 5, 1999, follow-up letter to MMS, the Commission's Executive Director identified a number of concerns related to changed circumstances and new information that needed to be addressed in the MMS review, including the age of the leases, the poor quality of the oil, the proximity of the leases to marine sanctuaries, and potentially changed environmental circumstances. The Coastal Commission also advised MMS that pursuant to the CZMA the lessees were required to provide the Coastal Commission with a certification of consistency with the CCMP.

MMS disagreed with the Coastal Commission's position that the lease suspensions were subject to the consistency review requirements of the CZMA, and refused to submit consistency certifications to the Commission. In November 1999, MMS notified the lessees that it had approved their requests for suspensions. The State of California challenged MMS's failures to comply with the requirements of the CZMA with respect to the lease suspensions in U.S. District

[4] By decision dated August 16, 1999, the MMS removed three leases in the Santa Maria Unit (Leases 420, 424, and 429) and one in the Gato Canyon Unit (Lease 462) and they expired. The lessees appealed the decision to the Interior Board of Land Appeals, and the appeals are currently under review.

Court in the case of *State of California v. Norton*. On June 15, 2001, the district court held that the approval of the lease suspensions by MMS is a federal agency activity subject to consistency review by California under the CZMA. The federal defendants appealed. On December 2, 2002, the U.S. Court of Appeals for the Ninth Circuit affirmed the district court judgment (311 F.3d 1162 (9th Cir. 2002)).

On April 7, 2005, pursuant to the court's order, MMS submitted to the Commission 10 consistency determinations — one consistency determination for each of the nine units, plus one for Lease OCS-P 409. This report reviews the suspensions of leases in the Cavern Point Unit. The lease suspensions for other units are analyzed in separate Commission reports.

2.2.2 Scope of Coastal Commission Review

At the time of issuance of the 36 subject leases, a lease sale was not a federal agency activity that required federal consistency review by the Commission. See *Secretary of the Interior v. California* (1984) 464 U.S. 312. In 1990, in the Coastal Zone Act Reauthorization Amendments of 1990 ("CZARA"), Congress amended the CZMA specifically to extend the consistency requirements of that statute to the sale of leases on the OCS as a federal agency activity. Congress clarified its intent in enacting the CZARA amendments to the CZMA in the following manner:[5]

> *The conferees intend the determination of whether a specific federal agency activity may affect any natural resource, land use, or water use in the coastal zone to include...cumulative and secondary effects. therefore, the term "affecting" [in CZMA § 307(c)] is to be construed broadly, including direct effects which are caused by the activity and occur at the same time and place, and indirect effects which may be caused by the activity and are later in time or farther removed in distance, but are still reasonably foreseeable. [Emphasis added.]*

Because these leases predated the 1990 amendments to the CZMA, the State of California never had the opportunity to review these leases for CZMA consistency at the lease sale stage.

In its decision in *California v. Norton*, the Appeals Court specifically rejected the argument that review of the lease suspensions would duplicate review of activities described in Exploration Plans or Development and Production Plans. The court stated:

> *In subjecting lease sales to consistency review, Congress has made it clear that the statute does not prohibit consistency review of federal agency activities that are not subsidiary to exploration and development and production plans. The exploration and development and production plan stages are* not *the only opportunities for review afforded to States under the statutory scheme…*
>
> *…These lease suspensions represent a significant decision to extend the life of oil exploration and production off California's coast, with all of the far reaching effects and*

[5] House Conference Report No. 101-964; 1990 *U.S. Code Cong. & Adm. News*, p. 2017.

> *perils that go along with offshore oil production.* (*State of California v. Norton* 311 F.3d 1162, 1173 (9th Cir. 2002))

Furthermore, the court stated that the review of lease suspensions is similar to the review of a lease sale, in that the effects to be analyzed are "very broad" and "long term."

> *Although a lease suspension is not identical to a lease sale, the very broad and long term effects of these suspensions more closely resembles the effects of a sale than they do the highly specific activities reviewed [in an Exploration Plan or Development and Production Plan]…[Lease suspension] review is available now for the broader effects implicated in suspending the leases. This phasing of review fits closely the expressed intent of Congress…* (*ibid. at* 1174)

The court made clear that the Commission's review of a lease suspension is similar to its review of a lease sale in the sense that the Commission is to analyze the broad and long-term coastal effects (i.e., post-suspension exploration, development and production activities) that are reasonably foreseeable if a lease suspension is granted. The court nevertheless acknowledged, and the Commission agrees, that a lease suspension is not identical to a lease sale. The subject lease suspensions have been requested decades after the initial lease sale, after most of these leases have been explored and detailed environmental and technical evaluations have already been performed. Substantially more information and details are available now on these leases than were available at the original lease sale stage. In fact, many of the undeveloped leases can be developed from existing platforms for which Development and Production Plans have been prepared, but would require only revision. In *Secretary of the Interior v. California*, the U.S. Supreme Court noted there are four distinct stages to developing an OCS oil lease: (1) formulation of a 5-year leasing plan by the Department of the Interior; (2) the lease sale; (3) exploration; and (4) development and production. Most of the 36 leases currently fall between stages (3) and (4).

MMS chose, however, to model its consistency determinations for the lease suspensions on recent Alaska Lease Sale 191. The Commission believes the Alaska model is not adequate for the review of the lease suspensions for several reasons:

- Lease Sale 191 comprised an area over 200 million acres in the Cook Inlet Planning Area as compared to the 184,191 acres encompassing the 36 undeveloped California leases. The difference is an order of magnitude (i.e., a factor of 10).

- Lease Sale 191 occurred in an OCS planning area (Cook Inlet) where no production and development of OCS oil and gas has ever been proposed, examined in detailed in environmental impact statements, or permitted, because no economically recoverable reserves have been discovered. Little environmental information is available. Thus, the available information is very general in scope.

- By contrast, the Commission's consideration of the lease suspensions takes place 2-4 decades following the 10 lease sales the federal government conducted offshore California. Forty-two of the remaining 79 OCS leases offshore California are producing

> oil and gas or are situated on producing units, and their development was preceded by detailed environmental review. All but one of the 36 leases have been consolidated into 9 units that have identifiable and named oil and gas fields. All but one unit have been granted Exploration Plans and, decades ago, lessees drilled exploratory wells discovering paying quantities of oil and gas. In the early 1990s, the lessees developed hypothetical, but likely, development scenarios for each of the leases so that MMS could prepare the COOGER Study, a 1999 study that evaluated the potential onshore constraints of developing the then-40 undeveloped leases.

Therefore, answers to the questions "if, when, and how exploration, development and production would actually occur" are far better understood for these leases as compared to a lease sale such as Alaska Lease Sale 191. Notwithstanding the level of information available about the potential development of the 36 leases, the MMS chose not to submit for the Commission's review data and environmental analysis that is either readily available or could be developed now. Instead, because MMS is treating the review of the lease suspensions strictly as a "lease sale" stage, it believes it needs to provide "general" information only, *even if specific information is available.*

In an April 22, 2005, letter to MMS, Coastal Commission staff requested additional information regarding the "reasonably foreseeable direct and indirect effects" of the requested suspensions, namely, the likely post-suspension exploration, development, and production activities. The Commission staff informed MMS that additional information is needed in order for the Coastal Commission to determine whether the proposed lease suspensions are consistent with the enforceable policies of the CCMP. For example, the Coastal Commission staff requested that MMS estimate how the future development of Sword, Bonito, Rocky Point, and Cavern Point Units might extend the life of existing Point Arguello Unit platforms and Platform Gail. In its original submittal, MMS provided no information regarding how the extension of life of existing platforms, pipelines, and other infrastructure could affect coastal resources (e.g., increase risk of an oil spill, lengthen fishery preclusion areas). In its June 23, 2005, response letter, MMS refused to provide certain requested information, such as an estimate of extension of platform operations, or the results of *already completed* surveys (like onshore archeology or offshore hard bottom surveys), stating that it would not be "appropriate" for MMS to provide information during the lease suspension review stage that it believes should be provided by the lessees in the form of an Exploration Plan or a Development and Production Plan. (Appendix B). In refusing to comply with the Commission's information request, MMS states repeatedly that the operator will provide project details and further analysis if and when operators submit new or revised Exploration Plans and/or Development and Production Plans. MMS's refusal to comply with the Commission's information requests effectively results in deferral until the exploration and development stages of the consistency review that both the District Court and the Ninth Circuit Court of Appeals has directed to occur at the lease suspension stage. There is no basis for MMS's failure to fully describe now the exploration and production scenarios that the lease suspensions will make possible and conduct full environmental and consistency review.

Further, section 930.39(a) of the federal consistency regulations states that the amount of detail in the evaluation of the enforceable policies, activity description and supporting information of a consistency determination "shall be *commensurate with the expected coastal effects of the activity."* (Emphasis added). Given the potential magnitude of coastal effects of offshore oil and

gas development, section 930.39(a) requires MMS to provide as much detailed information as is available or that can reasonably be generated at the time of the review. MMS cannot defer examination of the reasonably foreseeable future effects of the lease suspensions to future reviews of Exploration Plans and Development and Production Plans.

2.2.3 Current OCS Operations in California[6]

Exhibit 2 illustrates leases, platforms and other oil and gas-related infrastructure off the coast of southern California. A total of seventy-nine Federal OCS oil and gas leases are currently located offshore California, not including the four expired leases that are under appeal. Forty-three of these leases are developed (i.e., oil and/or gas is being produced from them). The remaining 36 undeveloped leases are the subjects of the consistency determinations currently before the Commission. These leases are located between 3 and 12 miles offshore Santa Barbara, Ventura, and San Luis Obispo Counties. Table 2 presents a summary of the undeveloped leases.

Table 2. Undeveloped Pacific OCS Oil and Gas Units and Leases.

Unit	**Operator**	**Lease Number(s)**	**Consistency Determination Number**
Lion Rock*	Aera Energy LLC	396, 397, 402, 403, 408, 414	CD-042-05
Point Sal*	Aera Energy LLC	415, 416, 421, 422	CD-043-05
Santa Maria*	Aera Energy LLC	425, 430, 431, 433, 434	CD-044-05
Purisima Point*	Aera Energy LLC	426, 427, 432, 435	CD-045-05
Lease 409	Aera Energy LLC	409	CD-046-05
Bonito	PXP	443, 445, 446, 449, 450[7], 499, 500	CD-047-05
Rocky Point	Arguello	452, 453	CD-048-05
Sword	Samedan Oil Corporation	319, 320, 322, 323A	CD-049-05
Gato Canyon	Samedan Oil Corporation	460, 464	CD-050-05
Cavern Point	Venoco, Inc.	210, 527	CD-051-05

*Collectively referred to as Northern Santa Maria Basin Units

Nineteen platforms support production of the developed leases offshore Santa Barbara and Ventura Counties. No platforms are located offshore San Luis Obispo County. The 19 existing platforms are supported by pipelines, processing and separation facilities, and other associated infrastructure. Onshore facilities supporting Pacific OCS oil and gas development include:

[6] This information is taken from the EID, section 2.2

[7] Most of Lease 450 is located in the Point Arguello Unit; the entire lease is therefore held by production and is not being considered for suspension. The northwestern portion of Lease 450 is located in the Bonito Unit.

Ventura County - Mandalay Onshore Separation Facility, West Montalvo Operations, Rincon Oil and Gas Processing Facility, and La Conchita Oil and Gas Processing Facility

Santa Barbara County, Carpinteria Onshore Gas Facility connected to offshore Platform Habitat, Carpinteria Oil and Gas Processing Terminal connected to offshore Platforms Gail and Grace, Las Flores Canyon Santa Ynez Unit Oil and Gas Processing Facility, Gaviota Oil Heating Facility, Gaviota Storage Terminal (soon to be decommissioned), Lompoc Oil and Gas Processing Facility, and Several pipeline systems

In addition to Pacific OCS activities, the region includes oil and gas leases and production in California State waters (State tide and submerged lands). State leases fall under the management and administration of the California State Lands Commission. The State Lands Commission has issued thirty-two leases located in State waters, seventeen of which are producing, and fifteen of which are non-producing. No State platforms are located offshore San Luis Obispo County; however there are onshore support facilities located in San Luis Obispo or northern Santa Barbara County, including pipelines, oil pump stations, and a heavy, high sulfur oil upgrader refinery. Platform Holly, located offshore Goleta (Santa Barbara County), and Rincon Island, located offshore Rincon Beach (Ventura County) are the only two offshore production facilities associated with State leases that are operational in the tri-county region. Platform Holly is supported onshore by the Ellwood Processing Oil and Gas Processing Facility, and Rincon Island is supported onshore by the Rincon Island and State Lease 145/410 Oil and Gas Processing Facility. (See Exhibit 3) Venoco has applied to restart production from one of its two piers that extend from shore into State waters (PRC 421).

Offshore oil and gas production rates peaked in State waters in 1969 and in federal waters in 1995-1996. Federal offshore oil and gas annual production rates for the years 1984 through 2003, for the Santa Maria Basin and Santa Barbara Channel are presented in Table 3.

Table 3. Federal Pacific OCS Oil and Gas Annual Production Rates for 1984 through 2003.

Year	Total Oil (million bbls)	Total Gas (billion ft^3)	Year	Total Oil (million bbls)	Total Gas (billion ft^3)
1984	25.3	44.1	1994	54.8	52.7
1985	23.2	60.8	1995	69.3	61.9
1986	21.7	55.5	1996	61.1	66.1
1987	24.4	53.0	1997	51.5	76.0
1988	25.5	47.7	1998	43.5	75.7
1989	27.4	49.4	1999	37.5	79.4
1990	24.5	48.2	2000	34.8	75.4
1991	27.0	51.0	2001	32.1	70.5
1992	38.3	54.0	2002	31.0	67.3
1993	46.8	50.8	2003	28.7	58.1
Total	**728.4**	**1197.6**			

Source: MMS, Pacific OCS Region. *Annual Summary of Production for Entire Region.* December 14, 2004

Total projected reserves for the 36 undeveloped leases is listed in Table 4, below:

Table 4: Total Projected Reserves of 36 Undeveloped Leases

Location		Oil Reserves (million bbls)	Gas Reserves (billion ft^3)
Northern Santa Maria Basin*	Northern Platform	115	47
	Central Platform	118	24
	Southern Platform	90	18
Bonito and Electra Fields (Bonito Unit)		22	11
Rocky Point Field (Rocky Point Unit and Lease 451)		39	11.7
Sword		29	7.3
Gato Canyon		77	46
Cavern Point		22	20
Total		**512**	**185**

Source: EID Table 5.2-4. pp 5.2-10 and 5.2-11
* Lion Rock, Pt. Sal, Purisima Pt., and Santa Maria Units

The United States consumes approximately 20 million barrels of oil per day, or approximately 7,300 million barrels annually.[8] California consumes approximately 615 million barrels of petroleum annually, and 2,000 billion cubic feet of natural gas annually.[9] The total projected reserves of the 36 undeveloped oil leases would therefore supply California with petroleum for approximately ten months, and with natural gas for approximately one month. Total reserves represent approximately 25 days of national consumption.

2.3 Project Description

Venoco, Inc., has submitted a request to the MMS for a 13-month suspension[10] of undeveloped OCS oil and gas leases (OCS-P 0210, and OCS-P 0527) that comprise the Cavern Point Unit. The Cavern Point Unit is located offshore Ventura County, approximately 6 miles north of the east side of Santa Cruz Island and the west side of Anacapa Island. See Exhibit 1.

[8] US Energy information Administration. (see eia.doe.gov) http://www.eia.doe.gov/mer/pdf/pages/sec11_7.pdf Accessed July 8, 2005.

[9] US Energy information Administration. (see eia.doe.gov) http://www.eia.doe.gov/emeu/sep/ca/frame.html Accessed July 8, 2005.

[10] A suspension is defined in 30 CFR § 250.105 as: "a granted or directed deferral of the requirement to produce (Suspension of Production) or to conduct leaseholding operations (Suspension of Operations)." A lease suspension is effectively an extension of the life of the lease. See Section 2.3 of this report, below.

The proposed activity analyzed in this report is the granting by the MMS of a 13-month suspension of production ("SOP") request filed by Venoco, Inc., operator of the Cavern Point Canyon Unit (Lease OCS-P 0210 and OCS-P 0527) under 43 U.S.C. 1334(a)(1) of the Outer Continental Shelf Lands Act ("OCSLA"). Venoco has requested of MMS a lease suspension to conduct certain in-office activities (e.g., prepare either revisions to a previously-approved Exploration Plan or a new Exploration Plan). Any subsequent development of these leases would occur from existing Platform Gail and would not, acording to MMS, entail new infrastructure. No "on-the-water" activities are proposed for this unit during the suspension period.

After the suspension ends, Venoco intends to drill exploratory wells (Venoco had previously proposed two exploratory wells) from existing Platform Gail. Venoco would use the results of the exploratory drilling to prepare a Development and Production Plan for MMS's review and approval. For these phases, MMS also states that any produced water would be injected or disposed overboard at Platform Gail, and that any oil and gas produced could be processed using existing capacity.

MMS states (CD, p. 7):

> *At this stage, MMS is not aware of the specific plans the operator may be making in its EP. Further, based upon the results of the implementation of those plans, the lessees may or may not actually proceed to development and production. Even if they do progress to development and production, the MMS has no specific knowledge as to how the lessees would choose to develop the unit until the submission of a DPP or revisions to a DPP.*

MMS' assertion that it has "no specific knowledge as to how the lessees would choose to develop the unit" appears internally inconsistent with: (1) MMS' receipt in 2000 of an EP for the unit from Venoco, which proposed a specific exploratory scenario and estimated future production[11]; and (2) with MMS' own estimates of hypothetical development in its consistency determination and EID, which hypothesize: (a) a development scenario for the Cavern Point Canyon Unit of 10 production wells (and one service well) drilled from Platform Gail, and (b) an assumption that any oil and gas produced would be transported through existing pipelines from Platform Gail to Platform Grace, and then to the onshore processing facility in Carpinteria. Although it does not provide the basis for the hypothetical estimates contained in the EID, MMS estimates in the EID's hypothetical future scenario that the Cavern Point Unit reserves may contain 22 million barrels of oil ("MMbbl") and 20 billion cubic feet ("Bcf") of gas. MMS further estimates in the EID that the peak production would be 9,600 bbl. oil/day, 8,640 MCF (million cu. ft./day), with the peak occurring in year 3 of production, and that the platform will operate for another approximately 14-18 years (i.e., an estimated removal date of 2020-2025). The Commission does not have an understanding of what information these estimates are based on, and, even if they are accurate, MMS has not provided an analysis of whether they would extend the life of the existing infrastructure.

[11] Venoco's Draft EP (later withdrawn) discussed a production scenario possibly using wells drilled from both Platforms Gail and Grace, a scenario which is likely one that is now obsolete.

2.4 Cavern Point Unit Background

2.4.1 Lease Sales P4 and 80

The leases in the Cavern Point Unit (OCS-P 0210 and 0527) were issued in Lease Sales P-4 (in 1968) and Lease Sale 80 (in 1984), respectively. No stipulations were attached to Lease Sale P-4. The Lease Sale 80 leases include lease-term "stipulations," which are mitigation measures designed to protect potentially sensitive resources in an affected lease area and to reduce multiple –use conflicts. Among other things, the Lease Sale 80 stipulations require pipeline transport where feasible, protection of biological and cultural resources, fisheries and wildlife training, state of the art oil spill equipment, oil spill drills, onshore processing, commercial fisheries interaction, and drilling mud modeling when discharging within 1000 meters of a National Marine Sanctuary. In order to mitigate adverse environmental impacts for actions associated with a specific exploration, development and decommissioning project, MMS can impose additional mitigation requirements. MMS states that Venoco would comply with Lease Sale 80 Stipulations for both leases.

2.4.2 Platform Gail History

According to MMS, any subsequent development of the the Cavern Point Unit would occur from existing Platform Gail and would not entail new infrastructure. Platform Gail is located in the Santa Clara Unit, adjacent to and directly east of the Cavern Point Unit, on OCS-P 0205 (Exhibit 3). Both exploration and production activities on this lease were controversial and involved extensive Commission review and analysis.

In August 1980 the Commission objected to Chevron's proposal for exploratory drilling on OCS-P 0205 (CC-7-80). The primary basis for the objection was that the drill site was within the Channel Islands National Marine Sanctuary, within the buffer zone of the vessel traffic separation scheme (VTSS) in the Santa Barbara Channel, and in between the northbound and southbound VTSS lanes. Chevron had originally proposed to drill directly in the middle of the northbound lane; however, at the Commission's initial 1980 hearing Chevron's preferred position was relocated and pushed back as far as was practicable (from a geological perspective) from the lane, and re-sited to be between the lanes, and in the buffer zone.

Chevron revised and resubmitted its exploratory plan a year later (CC-9-81), in which the Commission concurred in January 1982. Chevron proposed a new location further away from Anacapa Island and outside the Sanctuary, but still within 500 meters of one of the VTSS lanes (and within the buffer zone).

After Chevron notified the Coast Guard of its desire to eventually site a production platform in the vicinity, working with the oil and shipping companies, the Coast Guard agreed to move the lanes southward in order to accommodate Chevron's development of the Sockeye Field. On February 1, 1985, the Coast Guard and the International Maritime Organization (IMO) approved the VTSS lane modification, at which point the lanes were repositioned one-half mile southward, thus removing Platform Gail from either the traffic lanes or the buffer zones. On January 30, 1986, Chevron submitted its consistency certification for the platform to the Commission.

On July 8, 1986, the Commission objected to Chevron's consistency certification for Platform Gail (and its associated pipelines to Platform Grace and to shore) (CC-2-86). Primary Commission concerns were the site's proximity to vessel traffic lanes and the National Marine Sanctuary and Anacapa Island, as well as geologic hazards. The project was 2,053 feet from the northern buffer zone of the northbound Vessel Traffic Separation Scheme (VTSS) lane, 6.5 miles from the Channel Islands National Park and a major nesting area for the endangered brown pelican (Anacapa Island), one half mile from the Channel Islands National Marine Sanctuary, and over a geologically unstable area. Despite the mitigation proposed by Chevron, the Commission found that a platform at this location would pose unacceptable risks to vessel traffic safety, with consequent risk of oil spills and damage to coastal resources of particular value and sensitivity. The Commission found the project inconsistent with Coastal Act policies regarding marine and coastal resources (Sections 30230 and 30231); water quality (Sections 30230, 30231 and 30250); commercial fishing (Sections 30230, 30231, 30234, 30250(a) and 30255); oil spills (Section 30232); vessel traffic safety (Section 30262(d)); scenic and recreational resources (Sections 30001(b), 30210, 30221 and 30251); and cumulative impacts (Section 30250) with respect to commercial fishing, air quality, and onshore facilities. In considering whether the project could be found consistent with the Coastal Act by virtue of Section 30260, the Commission determined that alternative locations should have been considered by Chevron, since these might have allowed the benefits of development with reduced risks and less severe impacts to the unique habitat and recreational values of the Channel Islands National Park and Marine Sanctuary. The Commission therefore found the project inconsistent with Section 30260(1). The Commission further determined that adverse impacts of the project were not mitigated to the maximum extent feasible as required by Section 30260(3), and that, the project was inconsistent with the public welfare provision set forth in Section 30260(2).

On July 15, 1986, Chevron resubmitted the project in modified form and with additional information and mitigation intended to address the Commission's concerns. The revised submittal, CC-36-86, included all of the mitigation measures of the previous submittal (CC-2-86), plus the following additional mitigation: the purchase of an additional 5 tons of oxides of nitrogen (NOx) offsets[12] so that all of the construction emissions of the project would be mitigated; installation and use of an Automatic Radar Plotting Aid (ARPA) on the platform to reduce vessel traffic safety hazard; a $150,000 contribution to the Friends of the Channel Islands National Park to provide for scenic and recreational amenities within the park (such as trails and interpretive facilities on Anacapa Island); and a $250,000 contribution[13] to a commercial fishing contingency fund specifically administered to mitigate potential impacts of the platform on the San Pedro purse seine fishing industry. Chevron also provided additional information on the feasibility of alternative locations, as well as the feasibility of installing mid-line valves in the oil pipeline, to reduce spill volume in the event of a pipeline rupture (the pipeline crossed an underwater landslide)(Exhibit 6). Despite these additional measures, on September 9, 1986, the Commission again objected to Chevron's consistency certification (CC-36-86).

[12] Note – this was in addition to 185 tons of NOx offsets Chevron had previously agreed to.

[13] Note – this was in addition to $600,000 Chevron had previously agreed to for mitigating fishing impacts: $250,000 for a "lost and damaged gear" contingency fund for local fishermen; $250,000 for an "insurance trust" fund for the local trawl fleet; and $100,000 to be used towards a study of the cumulative economic impacts of OCS development in the Santa Barbara Channel.

Chevron appealed the Commission's objection to the Secretary of Commerce on September 10, 1986, and filed suit against the Commission on November 3, 1986. On November 13, 1986, before findings could be adopted for the Commission's September 9, 1986, objection, Chevron, MMS, and the Commission entered into a settlement agreement allowing the project to proceed with some of the mitigation measures deleted. The measures deleted in the settlement agreement were: the installation of the ARPA; the $150,000 for park improvements intended to offset the platform's adverse impact on the scenic and recreational resources of the Channel Islands National Park and Marine Sanctuary; the contribution of $250,000 to the San Pedro purse seiner's contingency fund; and the purchase of the last 5 tons of emission offsets for construction emissions. All other mitigation measures proposed by Chevron agreed to in CC-36-86 were incorporated into the project. Chevron installed the 36-well slot platform in 1987.

2.4.3 A Series of Suspensions

The Cavern Point Unit leases remained active, although undeveloped, through November 1999 by virtue of a series of lease suspensions issued for a variety of reasons (e.g., reinterpretation of seismic data, permitting activities). In November 1999, the MMS granted a suspension for the Cavern Point Unit. As described in Section 2.2.1 above, in June 2001, the district court in *California v. Norton* set aside MMS's November 1999 suspension decision and found that a lease suspension is an activity subject to the federal consistency review requirements of the federal Coastal Zone Management Act. MMS submitted this consistency determination in response to the court's decision in *California v. Norton*. In the meantime, until the Coastal Commission and the MMS act on Venoco's suspension request, the court directed MMS to direct (i.e., impose) a Suspension of Operations for the Cavern Point Unit. During the period described in this paragraph, Venoco also submitted an EP, which MMS deemed "submitted" on June 4, 2001. Venoco withdrew the EP from review on July 3, 2001.

2.5 Related Environmental Documents

2.5.1 Environmental Assessments

Under the National Environmental Policy Act ("NEPA"), MMS prepared six Environmental Assessments ("EAs") discussing the potential impacts of activities that will occur during the suspensions.[14] The EAs include:

- MMS Proposal to Grant Suspensions of Production for Aera Energy LLC's Lion Rock Unit, Point Sal Unit, Purisima Point Unit, Santa Maria Unit, and Lease 409
- MMS Proposal to Grant Suspension of Production for Plains Exploration & Production Company's Bonito Unit
- MMS Proposal to Grant Suspension of Production for Arguello Inc.'s Rocky Point Unit
- MMS Proposal to Grant Suspension of Production for Samedan Oil Corporation's Sword Unit

[14] U. S. Department of the Interior, Minerals Management Service. *Environmental Assessments and Findings of No Significant Impact For Granting Suspensions of Production or Operations*. February 11, 2005. Available at http://www.mms.gov/omm/pacific/lease/2005-final-eas.htm

- MMS Proposal to Grant Suspension of Production for Samedan Oil Corporation's Gato Canyon Unit
- MMS Proposal to Grant Suspension of Operations for Venoco, Inc.'s Cavern Point Unit

The EAs, which were far more limited in scope than the subject consistency determinations, concluded that all potential impacts from activities occurring during the suspensions can be mitigated to an insignificant level. MMS issued findings of no significant impact based on each of the EAs on February 11, 2005. On March 9, 2005, ten conservation groups, led by the Natural Resources Defense Council and the Environmental Defense Center, filed a lawsuit in federal district court against MMS, challenging the adequacy of the EAs (*League for Coastal Protection, et al. v. Norton, et al*., No. C 05-00991-CW (N.D. Cal.)).

2.5.2 Environmental Information Document

Acknowledging that the Appeals Court envisioned more extensive analysis of activities that could occur after the suspensions were granted, MMS submitted, along with the consistency determinations, an Environmental Information Document ("EID")[15]. The EID evaluates the potential post-suspension activities, presented as hypothetical scenarios in the period following the suspensions. The EID analyzes activities that could potentially take place during the 2006–2030 time period, including: 1) exploration and delineation drilling, 2) platform and pipeline construction, 3) production activities, and 4) decommissioning of facilities.

2.5.3 COOGER Study

The California Offshore Oil and Gas Energy Resources Study ("COOGER Study")[16] was designed by a joint government, industry, and public working group to address concerns about the potential demands on onshore infrastructure from expanded oil and gas development in both State and federal waters. The study assessed and compared a suite of potential Pacific OCS development scenarios for Santa Barbara, Ventura, and San Luis Obispo Counties over a 20-year timeframe (1995 though 2015). The Final COOGER Study, published in January 2000, focused its constraints analysis for the potential development scenarios on industrial and public infrastructure demand within the study area.

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[15]Minerals Management Service, Pacific OCS Region. *Environmental Information Document for Post-Suspension Activities on the Nine Federal Undeveloped Units and Lease OCS-P 409 Offshore Santa Barbara, Ventura, and San Louis Obispo Counties.* Prepared by Aspen Environmental Group. January 2005.

[16] Minerals Management Service. *Final California Offshore Oil and Gas Energy Resources Study: Development Scenarios and Onshore Physical Infrastructure in the Tri-County Area of San Louis Obispo, Santa Barbara and Ventura.* Prepared by Dames & Moore. OCS Report MMS 99-0043. January 26, 2000.

3 Coastal Act Issues

3.1 Marine Resources/Water Quality

Coastal Act § 30230 provides:

> *Marine resources shall be maintained, enhanced, and where feasible, restored. Special protection shall be given to areas and species of special biological or economic significance. Uses of the marine environment shall be carried out in a manner that will sustain the biological productivity of coastal waters and that will maintain healthy populations of all species of marine organisms adequate for long-term commercial, recreational, scientific, and educational purposes.*

Coastal Act § 30231 provides:

> *The biological productivity and the quality of coastal waters, streams, wetlands, estuaries, and lakes appropriate to maintain optimum populations of marine organisms and for the protection of human health shall be maintained and, where feasible, restored through, among other means, minimizing adverse effects of waste water discharges and entrainment, controlling runoff, preventing depletion of ground water supplies and substantial interference with surface water flow, encouraging waste water reclamation, maintaining natural vegetation buffer areas that protect riparian habitats, and minimizing alteration of natural streams.*

Background

Exhibit 4 contains a description of the regional marine resources common to all the OCS lease suspensions. More specifically for the subject suspension, the extensive marine resources in the eastern Santa Barbara Channel are well documented. In its previous review of Platform Gail (CC-36-06), the Commission noted the proximity of the site to the gray whale migration path, the only brown pelican nesting site in the United States (brown pelicans are highly susceptible to adverse effects from oil spills), the close proximity of the platform to the Channel Islands National Marine Sanctuary, which is host to a large number of important and sensitive marine resources, including extensive intertidal habitats, ecologically important kelp ecosystems, wetlands, rocky bottom reef substrate habitats, Essential Fish Habitat for hundreds of fish, and seabird species (including Critical Habitat for at least 10 of these species), at least 33 species of cetaceans (including blue, fin, right, sperm, sei, gray and humpback whales), six pinniped species, and five species (all federally listed as endangered) of sea turtles. In addition, as the Commission previously noted, extensive sensitive mainland nearshore and wetland habitats, which could be damaged by any oil spills reaching the mainland, include the Carpinteria Slough, Santa Clara River estuary, and Mugu Lagoon wetland habitats, grunion spawning on many area beaches, least tern nesting at the Santa Clara River mouth, Point Mugu, and Ormond Beach, and pismo clam habitat.

Since the time of the Commission's review of the platform, the national and even international recognition of the value of the marine resources in the area has continued to grow in significance. In 2002 the Department of Fish and Game designated a series of Marine Protected Areas within state waters of the Sanctuary (Exhibit 5), and efforts are underway to expand these MPAs into federal waters. Two of these MPAs are close to Platform Gail – the Scorpion Point MPA north of Santa Rosa Island, and the Anacapa Island MPA north of Anacapa Island. In addition, several endangered and threatened species have been listed since 1986, including white abalone (2001), tidewater goby (1994), southern steelhead (1997), Santa Ana sucker (2000), Stellar sea lion (1990), Guadalupe fur seal (1985), western snowy plover (1993), and California red-legged frog (1996)). These new listings must be given serious weight, as these species are on the brink of extinction and would be severely impacted by an oil spill from development of these leases.

MMS' Marine Resources Analysis

MMS states in its consistency determination:

> *During the suspension phase, Venoco will conduct certain in-office activities that will result in the submission of a new Exploration Plan (EP). No "on the water" activities are proposed to take place during the suspension.*
>
> *In the hypothetical post-suspension phase, routine activities associated with the development of the Cavern Point Unit may result in temporary, localized disturbances to marine resources, including fish resources, marine mammals, and marine and coastal birds (see EID Section 5.7). Once production begins, support vessel traffic is anticipated to remain at levels typical for ongoing offshore oil and gas activities in the Santa Barbara Channel. Hypothetical post-suspension phase activities would not involve the construction or operation of any new onshore facilities, and therefore would not affect onshore biological resources.*
>
> *Post-suspension phase activities that may affect seafloor resources include discharges during drilling. Effects on seafloor resources in the Cavern Point Unit are anticipated to be insignificant because no new offshore construction would occur and because drilling would take place from Platform Gail.*
>
> *During drilling and production, platform discharges would be regulated under the new Pacific OCS National Pollutant Discharge Elimination System (NPDES) permit and would be required to meet NPDES water quality criteria (see EID Section 5.7.7). Platform Gail is operating under a General NPDES permit and no change in operation is anticipated with development of the Cavern Point Unit. Effects would be anticipated to be low. No measurable effects on threatened and endangered marine mammals or sea turtles in the area would be anticipated.*
>
> *A potential oil spill during development and production may contribute to a negligible to high level effect on water quality. However, the hypothetical post-suspension activities at the Cavern Point Unit would not substantially increase the existing risk of an oil spill*

from Platform Gail and associated pipelines. Other than a potential oil spill, the hypothetical post-suspension activities are not anticipated to create any substantial effects resulting from the spillage of oil, gas, or other hazardous substances.

The potential for an oil spill occurring from development of the Cavern Point Unit represents a small but measurable incremental increase to the cumulative oil spill risk for threatened and endangered plants, marine mammals, and amphibians. In the event that an oil spill occurs, it would be anticipated to result in low to moderate effects on sea otters; fish resources; and marine, coastal, and threatened and endangered birds during the hypothetical post-suspension period. Effects on the sea turtle are assumed to be negligible.

The effects of hypothetical post-suspension activities (i.e., routine operations for exploration, development and production) on marine resources such as kelp beds, wetlands, the sea floor, fish resources, marine mammals, and marine and coastal birds, would result in low level effects. A potential oil spill may result in moderate level effects to threatened and endangered marine mammals, coastal and marine birds; with low to high level effects on rocky and sandy beaches, estuarine and wetland habitats; and moderate to high level effects on threatened and endangered plants in the affected area. Effects on sea turtles and threatened and endangered fish and marine invertebrates resulting from hypothetical post-suspension activities were determined to be negligible.

As stated above, Venoco must submit a new plan for exploration and new or revised plans for development for approval to the MMS and, when appropriate, must certify that activities described in their plans are consistent with the enforceable policies of the California Coastal Management Program (CCMP) under section 307(c)(3) of the CZMA. If appropriate under Federal regulations, the State will review the plans and the consistency certifications and either concur or object. No activities will be permitted by MMS without State concurrence or a decision by the Secretary of Commerce to override the State's objections. Therefore, no foreseeable impacts can occur as a result of the proposed action except for those caused by activities that are fully consistent with the enforceable policies of the CCMP. However, given the scenarios and attendant activities hypothesized in the EID, it is anticipated that any conflicts with the enforceable policies can be avoided.

MMS concludes:

Based upon the above, granting an SOO to Venoco for the Cavern Point Unit will be consistent to the maximum extent practicable with sections 30230 and 30231.

Commission Response

MMS' conclusions are predicated on the assumptions that "… any conflicts with the enforceable policies can be avoided" and that existing infrastructure would be used to develop the unit. In order to evaluate these assumptions, the Coastal Commission staff's April 22, 2005, letter to MMS requested additional information concerning the design life of existing facilities and their

structural integrity. MMS responded to the Commission staff's information request with statements that it regularly tests the platforms and pipelines to ensure that they are safe and being properly maintained, that future case-by-case reviews can address any concerns over their integrity, and that:

> *Platforms Gail and Grace and the associated pipelines are structurally sound according to our records and the results of the inspections. We believe that if they are properly maintained, they have many more years of remaining life.*

This response ignores the fundamental question of the continuing impact of use of the existing infrastructure on the marine environment, including additional operation (drilling, crew and supply boat, and helicopter) noise, and extended and increased oil spill risks. Based on the discussions in the following two sections of this report (marine discharges and oil spills), the Commission finds that the proposed activity and its reasonably foreseeable effects would be inconsistent with the marine resources, water quality, and oil spill policies (Sections 30230, 30231, and 30323) of the Coastal Act.

Because Platform Gail and associated pipelines are "coastal-dependent industrial facilities," the proposed project is presumptively subject to analysis under section 30260 of the Coastal Act. See Section 3.9: Coastal Dependent Industrial Facility "Override" Provision of this staff report, below. As will be discussed in that analysis, the Commission needs additional information to enable it to determine the project's impacts in several issue areas (including oil spill risks, and, therefore, marine resources and water quality) in order to adequately analyze it under Section 30260 of the Coastal Act.

3.1.1 Oil Spills

Introduction

Summary

Since the first federal lease sale offshore Santa Barbara in 1966, the potential for oil spills from offshore oil and gas development has been a major environmental concern. Oil spills resulting from such events as well blowouts, pipeline ruptures, operational errors, or vessel-platform collisions can lead to significant adverse effects on the marine and coastal resources of the Santa Barbara Channel, Santa Maria Basin, and southern California region. These resources include endangered or threatened species of seabirds and shorebirds (e.g., California brown pelicans, western snowy plovers), marine mammals (e.g., sea otters, stellar sea lions, humpback whales), and fishes and invertebrates (e.g., steelhead trout, tidewater goby, white abalone).

Since the time of the Commission's review of the existing platforms and support facilities, the national and even international significance of the value of the coastal and marine resources in the region — including the environmentally sensitive habitats of sandy beaches, rocky intertidal areas, and estuaries — has continued to grow. In addition to the Channel Islands National Park and Marine Sanctuary, the Santa Barbara Oil and Gas Sanctuary, the Santa Barbara Channel Federal Ecological Preserve and the Monterey Bay National Marine Sanctuary, the region now includes the San Luis Obispo State Seashore, Santa Barbara Coast Seashore, Marine Protected

Areas, Areas of Special Biological Significance, Marine Preserves, State Reserves, State Refuges, State Wildlife Areas, and numerous state parks and beaches.

MMS has submitted information to the Commission on oil spill risk in the consistency determinations and the EID. A document previously released by MMS, the Draft EIS for Delineation Drilling ("DEIS")[17] also contains pertinent information on the risk of oil spills from the granting of the lease suspensions. As discussed in more detail below, the EID and DEIS do not provide enough information for the Commission to analyze the potential impacts to marine and coastal resources in appropriate detail.

In a letter dated April 22, 2005, Commission staff requested additional information from MMS regarding oil spill risks. MMS's response reiterated the agency's position that the appropriate time for a detailed analysis is when operators have submitted specific Exploration Plans and Development and Production Plans, not at the lease suspension stage. MMS stated:

> *Drilling activities, if and when they occur, can only occur after the suspension period ends and must be detailed in EP's and DPP's that are approved by the MMS and certified consistent with the CCMP by the State. Pursuant to Federal regulations at 30 CFR 250.203 and 204, and reviewable pursuant to §307(c)(3) of the CZMA, EP's and DPP's will provide details regarding oil spill risk, volumes, oil quality, etc. No EP or DPP will be approved by MMS without State concurrence with an operator-provided consistency certification or a determination by the Secretary of Commerce to override the State's objections.*

As discussed in Section 2.2.2: Scope of Coastal Commission Review, above, the Commission disagrees with MMS's position that the more appropriate time to review details of oil spill risks, environmental consequences, and prevention and response capabilities for each of the hypothetical development scenarios is at the Development and Production Plan and Exploration Plan stage. Granting the lease suspensions could significantly increase the risk of oil spills, and consequent environmental impacts. The Commission must conduct a detailed oil spill risk analysis at the lease suspension stage in order to determine whether it is appropriate to facilitate through approval of the proposed suspensions future development of the undeveloped lease areas.

The Commission requested detailed information specifically regarding: 1) worst-case discharge volumes, 2) oil spill probabilities, and 3) oil spill trajectories. As discussed in relevant sections below, MMS has failed to provide this information to the Commission, and as a result the Commission finds it does not have sufficient information to analyze in appropriate detail potential impacts to coastal resources from a reasonably foreseeable oil spill. The Commission's lack of information in this regard is relevant to its analyses of the consistency of the granting of the lease suspensions with Coastal Act policies related to: marine resources and water quality

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[17] See Section 2.5: Related Environmental Documents, above. Minerals Management Service, Pacific OCS Region. *Delineation Drilling Activities in Federal Waters Offshore Santa Barbara County, California.* Draft Environmental Impact Statement. Published by the US Department of the Interior, MMS, Pacific OCS Region. Document 2001-046. June 2001.

(§§30230 and 30231), environmentally sensitive habitat areas (§30240), commercial fishing (§30234.5), access and recreation (§§ 30210, 30211, 30212, and 30220), and cultural resources (§30244).

Section 30232 of the Coastal Act requires the applicant to provide "protection against the spillage of crude oil, gas, petroleum products, or hazardous substances…" and to provide "effective containment and cleanup facilities and procedures" for accidental spills that do occur. As discussed in more detail below, the Commission finds that current prevention regulations and programs provide measures for maximum feasible protection against the spillage of crude oil and other petroleum hydrocarbons, and therefore granting the lease suspensions is consistent with the prevention standard of Section 30232. The Commission also finds that current state-of-the-art response measures cannot effectively protect California's shoreline and coastal resources from significant oil spill impacts, and therefore granting the lease suspensions is inconsistent with the response standard of Section 30232.

The following discussion is organized into the following topics: 1) background information, 2) oil spill risk analysis, and 3) prevention and response.

Relevant Coastal Act Sections

Section 30232 of the Coastal Act requires protection of coastal and marine resources from oil spills, and requires effective spill containment and clean-up, as follows:

> *Protection against the spillage of crude oil, gas, petroleum products, or hazardous substances shall be provided in relation to any development or transportation of such materials. Effective containment and cleanup facilities and procedures shall be provided for accidental spills that do occur.*

Potential impacts from an oil spill are relevant to the Commission's analyses under Coastal Act policies related to: marine resources and water quality (§§30230 and 30231), environmentally sensitive habitat areas (§30240), commercial fishing (§30234.5), access and recreation (§§ 30210, 30211, 30212, and 30220), and cultural resources (§30244).

The public access and recreation policies of the CCMP include:

§ 30210:

> *In carrying out the requirement of Section4 of Article X of the California Constitution, maximum access, which shall be conspicuously posted, and recreational opportunities shall be provided for all the people consistent with public safety needs and the need to protect public rights, rights of private property owners, and natural resource areas from overuse.*

§ 30211:

> *Development shall not interfere with the public's right of access to the sea where acquired through use or legislative authorization, including, but not limited to, the use of dry sand and rocky coastal beaches to the first line of terrestrial vegetation.*

§ 30212(a):

> *Public access from the nearest public roadway to the shoreline and along the coast shall be provided in new development projects except where: (1) It is inconsistent with public safety, military security needs, or the protection of fragile coastal resources, (2) Adequate access exists nearby, or, (3) Agriculture would be adversely affected. Dedicated accessway shall not be required to be opened to public use until a public agency or private association agrees to accept responsibility for maintenance and liability of the accessway.*

§ 30220:

> *Coastal areas suited for water-oriented recreational activities that cannot readily be provided at inland water areas shall be protected for such uses.*

The environmentally sensitive habitat areas policy of the CCMP (Coastal Act Section 30240) states:

> *(a) Environmentally sensitive habitat areas shall be protected against any significant disruption of habitat values, and only uses dependent on those resources shall be allowed within those areas.*
>
> *(b) Development in areas adjacent to environmentally sensitive habitat areas and parks and recreation areas shall be sited and designed to prevent impacts which would significantly degrade those areas, and shall be compatible with the continuance of those habitat and recreation areas.*

The cultural resources policy of the CCMP (Coastal Act Section 30244) states:

> *Where development would adversely impact archaeological or paleontological resources as identified by the State Historic Preservation Officer, reasonable mitigation measures shall be required.*

Coastal Act/CCMP policies related to marine resources, water quality, and commercial fishing are cited in the relevant sections of this staff report.

Regional Oil Spill History

Oil spills may occur from such events as well blowouts, pipeline breaks, operational errors, or vessel-platform collisions. The largest spill in the Pacific OCS region occurred in 1969, when a well blowout on Platform A in federal waters offshore Santa Barbara spilled an estimated 80,000 barrels of crude oil into the Santa Barbara Channel. Since 1969, the have been no further spills of this magnitude. Between 1970 and 1999, a total of 843 spills occurred that ranged from 1 barrel to 163 barrels. Most of these were less than 1 barrel. The largest was a 163-barrel spill from the

Platform Irene pipeline in State waters in September 1997.[18] This spill had significant adverse impacts on the marine and coastal resources of Santa Barbara County, and the operator was required to pay $3.25 million in damages and penalties to county, State, and federal agencies.[19]

The spill was caused by a failed flange on the subsea wet oil pipeline, exacerbated by the operator's decision to manually restart pipeline flow following an automatic shutdown caused by a pressure drop. Despite favorable weather conditions and rapid response and recovery efforts, which included use of state-of-the-art response equipment, the Platform Irene pipeline oil spill resulted in the oiling of approximately 17 miles of the Santa Barbara coastline. The oil came ashore on sandy beaches and on rocky intertidal areas. Some stretches of the beaches had oil coverage exceeding 50 percent, and the estuaries of San Antonio Creek, Honda Creek, and the Santa Ynez River were also affected. Clean-up actions, which required heavy equipment, many personnel, and removal of marine plants and other biota at the wrack line, resulted in physical disturbances to habitat.[20]

The spill most heavily affected the sandy beach nearest the origin of the spill, with light sheen, tarballs and tar patties found at several other beaches. A 2004 report[21] indicates that Pismo clams and spiny sand crabs, "likely suffered significant mortality from the spill." This report also states that rocky intertidal species including black abalone and mussels were "injured" by the spill, and reported observations of black abalone and mussel beds coated with oil along or near the shores of Vandenberg Air Force Base. An estimated 635 to 815 seabirds were oiled as a result of the spill. Animal species in the rocky intertidal zone were injured, as were beach-dwelling invertebrates. Shorebird numbers also decreased, including the endangered western snowy plover. The physical oiling of the beaches and subsequent clean-up activities affected beach-related recreational activities including walking, jogging, swimming, surfing, tidal pool viewing, fishing, and picnicking.

A loss of well control or "blowout" incident occurred on Platform Gail in November 2004, which did not result in a serious oil spill but necessitated platform shutdown and evacuation.[22] The cause was operator error: a contract employee had removed a lockdown pin, circumventing the blow-out preventer system, so that it failed to function as intended when an unbalanced condition developed in the well. The result was an uncontrolled flow of oil, gas, and seawater from the well.

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[18] EID, pp. 5.3 -11 to 5.3 -12

[19] Consent Decree. *United States and People of the State of California v Torch Energy Services*. 2002. (Settlement for Natural Resources Damage Assessment.)

[20] *Torch/Platform Irene Oil Spill, Scoping Document for Restoration Planning*, Prepared by Platform Irene Trustee Council, US Fish and Wildlife Service, Cal. Department of Fish and Game, US Air Force: Vandenberg Air Force Base, Cal. State Lands Commission, with assistance from Santa Barbara County Planning Development Department, Energy Division, October 20, 2004.

[21] *Ibid*. pp. 3-7

[22] http://www.mms.gov/omm/pacific/lease/Gail_Incident_Final_Draft_Report.pdf, accessed July 7, 2005.

Even small spills can cause significant impacts to sensitive resources. On June 15, 2005, twelve to fifteen barrels of light crude oil washed ashore onto Breton Island, Louisiana, from an offshore platform during a storm. The incident occurred during nesting season for thousands of birds at the Breton National Wildlife Refuge. Hundreds of endangered brown pelicans were killed. Approximately 1,000 oiled pelicans were recovered, including 268 live chicks.[23] Although this incident did not occur in California, it demonstrates that a very small spill from an OCS pipeline could have devastating effects on the coastal resources of the region, depending on the season and location of the pipeline.

Coastal Resources at Risk from an Oil Spill

The coastal resources at risk from a marine oil spill from OCS oil and gas development include marine biota, water quality, environmentally sensitive habitat areas (e.g., rocky intertidal areas, sandy beaches, wetlands, and estuaries), commercial fishing, access and recreation, and cultural resources. The sections that follow provide a summary of potential impacts from an oil spill to each of these resources.

Marine Biota[24]

A complete description of marine resources found in the area is included in this staff report as Exhibit 4. Subsections below focus on the potential effects of an oil spill on marine biota.

Sea Otters

The southern sea otter is extremely sensitive to oil spills. Lacking a layer of fat, these animals are dependent on maintaining an intact layer of air next to their skin. Oil on just a portion of the fur can cause hypothermia and death. Oil can also be ingested by otters when they attempt to groom their oiled fur, or when they consume filter-feeding prey that has also consumed oil.

The US Fish and Wildlife Service ("USFWS") and the Southern Sea Otter Recovery Team have specifically identified: "Managing petroleum exploration, extraction, and tankering to reduce the likelihood of a spill along the California coast to insignificant levels," as critical to southern sea otter population recovery.[25] The USFWS does not believe it is possible to avoid a catastrophic loss to the sea otter population in the event of a major spill in or near the sea otter's current range. The Southern Sea Otter Recovery Plan[26] concludes that, 1) an oil spill is likely to occur over the next 30 years (the period during which the 36 leases would be developed), 2) the probability of death in sea otters as a result of contact with oil following an oil spill is likely to be no less than 50 percent, and 3) rehabilitation of oiled sea otters following a major spill is

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[23] International Bird Rescue Research Center, http://www.ibrrc.org/louisiana-05.html, accessed July 7, 2005.

[24] EID, Biological Resources, Chapter 4.7 pp. 4.7-1 to 69 and Chapter 5.7, pp. 5.7-1 to 104

[25] U.S. Fish and Wildlife Service. 2003. Final Revised Recovery Plan for the Southern Sea Otter (*Enhydra lutris nereis*). Portland, Oregon. xi + 165 pp.

[26] *Ibid.*

expensive, may be detrimental to some individuals and is of questionable benefit to the population.

Other Marine Mammals

Oil may affect marine mammals through various pathways: surface contact, inhalation, ingestion, and baleen fouling. Since whales and most adult pinnipeds rely on layers of body fat and vascular control rather than a coat of fur to retain body heat, they are generally resistant to the thermal stresses associated with oil contact. However, exposure to oil can cause damage to skin, mucous, and eye tissues. The membranes of the eyes, mouth, and respiratory tract can be irritated and damaged by light oil and the resulting vapors. If oil compounds are absorbed into the circulatory system, they attack the liver, nervous system, and blood-forming tissues. Oil can collect in baleen plates, temporarily obstructing the flow of water between the plates and thereby reducing feeding efficiency. Reduction of food sources from acute or chronic hydrocarbon pollution can be an indirect effect of oil and gas activities.

Since oil can destroy the insulating qualities of hair or fur, resulting in hypothermia, marine mammals that depend on hair or fur for insulation are most likely to suffer mortality from exposure. Most vulnerable to the direct effects of oiling among the pinnipeds are fur seals and newborn pups, which lack a thick insulating layer of fat. More than 300 harbor seals are estimated to have died in Prince William Sound as a result of the *Exxon Valdez* oil spill, and pup production and survival were also affected. The majority of the dead harbor seals recovered were pups. Seasonally, the most vulnerable marine mammal resources along the California coast between Point Conception and Ragged Point would be harbor seal haul-out areas and pupping beaches, during early spring.

Marine Birds

Direct contact of birds with oil can cause matting of plumage, resulting in reduced flying or swimming ability; loss of buoyancy, which can lead to exhaustion and death from drowning; loss of insulation, which can lead to death from hypothermia; and increased physiological stresses and reproductive failure due to ingestion of oil. The 1997 163 bbl. Torch pipeline spill killed or injured between 635-815 birds. Oil-related mortality is highly dependent on the life histories of the bird species involved. Birds that spend much of their time feeding or resting on the surface of the water are more vulnerable to oil spills. Cleanup efforts to remove spilled oil may also cause impacts to coastal birds. The presence of human beings during clean-up activities, and attempts to capture oiled wildlife for rehabilitation, may have the effect of flushing birds into oiled water.

If oil spill contact with the shore occurs, California least terns, western snowy plovers, and light-footed clapper rails could also be affected. Brown pelicans occur throughout the project area and are especially widespread during the late summer and fall; therefore, at least a few pelicans would probably be oiled regardless of the location of a spill. The greatest threat to pelicans would be from a spill from one of the platforms (Grace, Gilda, Gail, or Gina) or associated pipelines at the eastern end of the Santa Barbara Channel. An oil spill from these platforms could contact Anacapa Island, which is the location of the largest pelican colony along the Pacific coast. A spill in close proximity to, or contacting, Anacapa Island during the breeding season

could result in the loss of adult birds and disrupt nesting activities; cleanup efforts could exacerbate the impact of a spill on nesting pelicans, which are especially sensitive to disturbance.

Sea Turtles

Oil spills can adversely affect sea turtles by toxic external contact, toxic ingestion or blockage of the digestive tract, disruption of salt glad function, asphyxiation, and displacement of preferred habitats. Sea turtles are known to ingest oil; this may occur during feeding (tar balls may be confused with food) or while attempting to clean oil from flippers. Oil ingestion frequently results in blockage of the respiratory system or digestive tract. Some fractions of ingested oil may also be retained in the animal's tissues, as was detected in turtles collected after the Ixtoc spill in the Gulf of Mexico. Breathing toxic fumes from floating oil can also cause harm to sea turtles.

Red-legged frog

Oil may affect amphibians through various pathways including direct contact, ingestion of contaminated prey, and lingering sublethal impacts from oil sequestered in sediments that may linger for years. Adult red-legged frogs move down to the brackish coastal lagoons formed seasonally behind sand berms that close the mouths of rivers and streams along the south central coast. Though no direct oil contact with frogs is expected, some red-legged frogs could return to lagoons in which oil has become sequestered in sediments, before contaminated sediments are flushed into the ocean. In addition, habitat destruction could result from clean-up efforts.

Fish

Fish can be affected directly by oil, either by ingestion of oil or oiled prey. They can also be affected by uptake of dissolved petroleum compounds through the gills, by effects on fish eggs and larval survival, and by changes in the ecosystem that supports fish. Many effects can be sub-lethal, transient, or slightly debilitating, however any stress requires energy for recovery, which can ultimately lead to increased vulnerability to disease or to decreased growth or reproductive success.

The egg, early embryonic, and larval-to-juvenile stages of fish seem to be the most sensitive to oil. The *Exxon Valdez* oil spill occurred within weeks of Pacific herring spawning along the shores of Prince William Sound, resulting in increased egg mortality and larval deformations, and site-specific occurrences of instantaneous mortality. Studies estimate that over 40 percent of the 1989 year-class was affected by *Exxon* Valdez at toxic levels. Also, fry from pink salmon emerged from their gravel spawning redds and entered the nearshore environment during the spill. Salmon and trout exposed to oil from the *Exxon Valdez* spill all showed reduced growth rates the season following the oil spill. Studies estimate that 1.9 million adult pink salmon failed to return to Prince William Sound in 1990, primarily because of a lack of growth in the critical nearshore life stage. Returns in 1991 and 1992 were most likely reduced by a total of 11 percent.

Abalone

A spill that resulted in substantial coating of subtidal rocky habitats or significant loss of attached algae within an area that supports white abalone poses the greatest risk. White abalone in water depths of less than 33 feet could also be affected by oil treated with chemical

dispersants, as the oil disperses through the water column. Recovery of the black abalone could exceed seven to ten years if a significant portion of the local population was directly contacted and heavily oiled by a spill.

Plants

Plant mortality from oil spills can be caused by smothering and toxic reactions to hydrocarbon exposure. Generally, oiled marsh vegetation dies above the soil interface, but roots and rhizomes survive when oiling is not too severe. The cleanup process could exacerbate the effects of an oil spill on threatened and endangered plants.

Environmentally Sensitive Habitat Areas

Rocky Intertidal and Sandy Beach Habitat

Primary oil spill impacts to rocky intertidal and sandy beach areas include smothering, uptake in tissues, and contamination of animals using rocky habitat and beaches, such as invertebrates, seabirds, and marine mammals. Oil tends to strand high in the intertidal in the barnacle zone. Tarballs in this zone are persistent, lasting several seasons. Oil can also persist in individual tidepools.

Estuaries and Wetlands

If oil from and offshore spill enters a wetland or estuary, impacts to the resource could include irreversible alteration of the habitat, mortality of endangered birds, plants and fish, and loss of plants and animals that may be unable to populate from adjacent areas. In addition to the potential for offshore spills, several hundreds of miles of pipelines onshore carry oil products that, if spilled, could affect estuarine and wetland habitat. A spill originating from an onshore pipeline (supporting offshore OCS oil production), especially from a pipeline break crossing a river or streambed, could send oil directly into a wetland. The cleanup process, which is another source of impacts, would consist of removal and replacement of contaminated soil and revegetation with native species. Although limited in extent, recovery could take several years, depending on the type of vegetation and wildlife affected by the spill.

Commercial Fishing[27]

Impacts to commercial fishing from an oil spill could include fouling of commercial fishing gear and vessels, closure of harbors, and preclusion of access to fishing areas. For example, as a result of the 1997 Torch oil spill, several fishermen filed claims for damages related to the spill and cleanup operations. Steve Dunn, representing the Santa Barbara Trappers, asserts that response, cleanup and repair vessels violated Vessel Traffic Corridor restrictions, resulting in lost or destroyed gear. Other fishermen similarly sought damages from loss of nets resulting from the spill and cleanup activities.[28]

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[27] EID, p. 5.13-3

[28] County of Santa Barbara Planning and Development Memorandum re: Update on Torch Oil Spill for January 20, 1998 Hearing, from John Patton, Director, to Board of Supervisors, dated January 13, 1998.

Access and Recreation[29]

The mainland coast in the project region includes a number of recreational beaches and parks that attract visitors throughout the year. Oil spills have the potential to affect access and recreation at the coast by causing beach and harbor closures. Cleanup of a smaller spill (200 barrels or less) can take up to two weeks, whereas a larger spill may take 30 days or more. The wider the area that is oiled, the more locations that could be affected, and as the area of effect increases, the more difficult it becomes to substitute near-by locations in order to enjoy recreational activities. Closing a beach or recreation area would have impacts on the people who enjoy overnight camping, swimming, surfing, walking, jogging, and tidepool-watching at these parks. In addition, the Channel Islands are restricted with regard to the maximum number of visitors at any given time, and the hauling capacity of park concessionaires is limited by boat occupancy restrictions. Anacapa and Santa Cruz Islands are the most vulnerable to losing visitor days due to an oil spill. Region-wide, deployment of containment booms could result in the closure of small craft harbors.

Cultural Resources[30]

Oil-spill related impacts are not expected to affect offshore cultural resources because of the nature of clean-up operations. Onshore, oil spills could alter the chemical composition of archeological materials and render them useless for carbon-14 dating. Oil spill containment and cleanup activities could result in extensive impacts to site deposits from the excavation of containment barriers (e.g., dams, berms, and trenches), and the mechanized removal of oil-soaked earth.

Oil Spill Risk Analysis

Spill Volumes

The EID states that the "most likely maximum size of a major oil spill" for all 36 undeveloped leases is 2,000 barrels,[31] and uses this quantity to characterize the worst-case spill scenario for all anticipated post-suspension hypothetical development scenarios. The Commission finds this characterization is overly simple, because expected worst-case spills may vary greatly from scenario to scenario due to large differences in anticipated production and other factors. (Volumes of oil transported by offshore pipelines range from a current 6,000 barrels per day from Platform Irene to a projected 92,000 barrels per day from hypothetical SMB "B" platform. See the staff report analyzing the consistency determinations for the Northern Santa Marina Basin leases for details.)

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[29] EID, p. 5.10-3

[30] EID, p. 5.8-3

[31] "The most likely maximum size of a major oil spill from potential future development — the maximum most probable discharge — 2,000 bbl, is based on the volumes of oil in various pipelines and vessels (i.e., tanks and other containers on platforms) as described in the U.S. Coast Guard Area Contingency Plans for oil spill response (e.g., USCG, 1999) (see MMS, 2001). This is the maximum volume of oil calculated to be spilled from a break in the longest Point Arguello Unit pipeline, the Hermosa to shore pipeline (A. D. Little, 2001 as cited in MMS, 2001)." EID, p. 5.3-14.

The Commission requested that MMS characterize the worst-case spill scenario using the "worst-case discharge volume," rather than the most likely maximum spill size. MMS replied to the Commission's request as follows:[32]

> *The maximum spill volumes described in the EID and previously in the [DEIS] are conservative in that they were applied to the largest observed or possible spills that MMS has observed in the Pacific Region subsequent to the 1969 spill in the Santa Barbara Channel. Thus, the hypothetical 2000 barrel spill from the Arguello pipeline described in the EID is based on the size and length of that pipeline, which is anticipated to be the largest of any in the region. Analyses of project specific development and associated pipelines would indicate hypothetical spills of smaller volume…*

MMS states in the EID that: "the most likely maximum size of a major oil spill from potential future development — the maximum most probable discharge — [is] 2,000 barrels." According to MMS, this number is based on the volumes of oil in various pipelines and vessels (i.e. tanks and other containers on platforms), and is applicable to all post-suspension hypothetical development scenarios given the spill record for the Pacific Region since 1970.[33]

The Commission disagrees with MMS's position that 2,000 barrels represents the maximum reasonably foreseeable spill size. The term "maximum most probable discharge" is ill defined in the EID,[34] and appears to be an arbitrary volume without substantive basis. The "worst-case discharge volume" is a well-defined quantity that is systematically calculated in each operator's oil spill response plan, following procedures given in 30 CFR 254.47, for offshore facilities, and in 49 CFR 194.105 for onshore pipelines. The estimated worst-case discharge volume varies among existing OCS facilities and can greatly exceed 2,000 barrels. For example, the estimated worst-case discharge volumes for Platforms Gail and Grace are 3,971 and 1,283 barrels, respectively, assuming prompt leak detection and pipeline shutdown.[35] The current federal worst-case response planning volume for Santa Clara Unit is 3,971 bbl.[36] Worst-case spill volumes could potentially be larger, if the Cavern Point Unit is developed as anticipated in the EID and the produced oil is processed offshore and transported through the pipelines to shore from Platform Gail. The 2,000-barrel maximum spill volume is also an inadequate measure of possible worst case spills from onshore pipelines,[37] or vessel-platform collisions.

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[32] June 23, 2005, MMS letter, page 47.

[33] EID, p.5.3 -14

[34] *Ibid*

[35] July 2004, Oil Spill Response Plan for Platforms Grace and Gail, Venoco Inc., pp. 3-3-2 and 3-3-4.

[36] *Ibid*

[37] For example, the worst case spill planning volume for the Platform Irene onshore pipeline (beginning at the beach) is 4,424 barrels. (California Office of Spill Prevention and Response Supplement for the Oil Spill Response Plan for the Point Pedernales 20-inch Wet Oil Pipeline, April, 2003, p. 4-2)

The worst-case discharge volume is the accepted standard for evaluating the maximum potential volume of oil spills. Information on the worst-case discharge volume is necessary for an assessment of the full range and extent of potential oil spill impacts to marine and coastal resources.

Spill Probabilities

The oil spill risk discussion in the EID focuses on the probability of "one or more spills," and offers no information on multiple spills.[38] This is an oversight that minimizes the apparent risk of spills. In its information request letter of April 22, 2005, the Commission requested that MMS provide an analysis of oil spill risk probabilities for multiple oil spills. MMS responded as follows:[39]

> *Because the EID tables indicate the probability of one* or more *(emphasis added), it does not minimize the risk of multiple spills. As indicated in the table in the comments provided to MMS (without verifying the accuracy of the calculations), the risk of two or more spills, etc. keeps decreasing as the number of spills increases. You are correct in that there is a relatively high probability of multiple spills from existing operations combined with the hypothetical development in the spill size range 50 – 999 barrels. Unfortunately, such statistics contribute very little to assessing hypothetical environmental impacts because the statistics do not give any insight into the risk of coincident spills either in time or space.*

This response does not address the Commission's request that MMS analyze the probability of multiple oil spills individually – that is, analyze the probability of two independent spills, three independent spills, four independent spills, etc., rather than merely analyzing the probability of "one or more spills." A preliminary analysis by the Commission staff, using MMS data and methodology,[40] shows that the estimated risk of multiple spills is significant, and that post-suspension development could substantially increase the probability of multiple spills over the life of the project. Anticipated post-suspension development of the 36 leases will increase the estimated probability of *one or more spills* in the 50-999 barrel size range only slightly (from 96.8 percent to 99.9 percent). However, the estimated probability of six independent spills would rise from a current 13.6 percent to 82.5 percent, and the probability of ten independent spills would rise from 0.3 percent to 30.6 percent. Similarly, for spills of 1,000 barrels or more, the estimated probability of one or more spills would rise from 46 percent to 76.8 percent, whereas the probability of two or more spills would rise from 12.8 percent to 42.9 percent.

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[38] EID p. 5.3-13 to 5.3-14

[39] June 23, 2005 MMS letter, page 47 and 48.

[40] Spill probability is estimated from historic oil spill data, specifically, the number of spills that have occurred for each billion barrels of crude oil handled. Once the historic spill rate is determined, an estimate of the expected mean number of spills over the expected life of a proposed project can be obtained by multiplying the estimated volume of recoverable reserves (in billions of barrels) times the spill rate (in spills per billion barrels). The probability that *N* spills will occur for the estimated mean number of spills is given by the Poisson distribution. The same model produces estimates of the probability of one or more spills, or multiple spills.

The Commission staff provides this information to indicate the importance of a multiple-spill probability analysis. It is accurate to the degree that Commission staff uses available MMS data and methodology. MMS has data relating to recoverable reserves and other characteristics of the hypothetical post suspension development scenarios that will allow a full analysis of the probability of multiple oil spills from development of these leases. A multiple-spill probability analysis is information that should be provided by MMS in the consistency determination. Without this information, the Commission cannot assess the full range, extent, and likelihood of oil spill impacts that may be caused by granting the lease suspensions.

Additionally, the EID does not include information on the spill risk probabilities for individual units — for example, there is no risk probability information specific to the cumulative risk of the proposed Cavern Pt. Unit development plus the risk of the existing Santa Clara Unit In its letter of April 22, 2005, the Commission staff requested that MMS provide estimates of spill probabilities for each existing operation and hypothetical development scenario. MMS did not address this request in its response letter. As a result, the Commission is unable to analyze how granting the lease suspensions may individually increase the probability of an oil spill, or the contribution that granting the lease suspensions would make to a cumulatively increased oil spill risk probability.

Spill Trajectories

Three separate oil spill trajectories analyses are presented in the DEIS and EID: 1) MMS's Oil Spill Risk Assessment ("OSRA") model, 2) the National Oceanic and Atmospheric Administration's "General NOAA Oil Modeling Environment" ("GNOME") oil spill model, and 3) an analysis of Scripps Institution of Oceanography ("Scripps") free-floating drifter trajectories. The results of the analyses are summarized in the EID as a composite analysis, which covers the general geographic region of anticipated post-suspension development. Upon initial review of the EID, Commission staff determined that the analyses are overly general, and do not provide enough detailed information for the Commission to analyze the risk of oil spill impacts to specific coastal resources. Commission staff requested more specific trajectory information, which would include:

1. Detailed trajectory analyses for each existing development project and hypothetical post-suspension scenario, using scenario-specific, maximum reasonably foreseeable spill sizes (i.e., worst-case discharge volumes); and

2. A summary of the analyses that clearly communicates the risk exposure borne by different coastal areas due to potential spills from each hypothetical development scenario, including discussions of variability and uncertainty in the estimates.

MMS responded to the Commission's request as follows:[41]

> *MMS believes it is appropriate to present generalized spill risk at this stage in the possible hypothetical future development of these undeveloped leases. MMS includes*

[41] June 23, 2005 MMS letter, page 46-47.

> *overall risk from a spill from possible future development because a spill could potentially affect geographically diverse resources in the overall area no matter the origin of the spill given the complex and varying circulation in the region…*
>
> *Project specific modeling would not add substantial resolution to the modeling of spill trajectories performed in the DEIS (1999) because the launch points for those trajectories cover the geographic domain of the projects described in the EID. Appendix Figure 5.2-1 in the DEIS indicates the launch points used in modeling. These are very near or within the units for which projects are described.*

The Commission does not agree that the generalized information provided in these analyses is appropriate at this stage of development. As discussed in Section 2.2.2: Scope of Coastal Commission Review, above, unlike a lease sale, the location and anticipated character of the post-suspension development scenarios are fairly well defined, and the available information would support a more specific analysis. Nor does the Commission agree that scenario-specific spill trajectory analyses would not "add substantial resolution." Rather, the modeling studies are overly generalized by design, and overlook factors important for evaluating oil movement and shoreline contact locations. Some major inadequacies in the analyses are summarized below.

Small scale current features

Neither the OSRA nor GNOME modeling studies appear to account for relatively fine-scale current features or changes in current patterns.[42] The importance of small scale variations is stressed in a National Research Council report, [43] which states: "In the absence of most of the temporally and spatially varying part of the spectrum, the predicted trajectories may miss many aspects contributing to drift, especially at the shorter time scales. This problem plagues all modeling efforts to some extent, but is of particular concern for southern California where the variable flows are so strong."

A recent study demonstrates the importance of fine-scale current dynamics. The study, which involved intensive deployment of drifters offshore Santa Barbara's southern coast between Ellwood and Naples, indicates that cross-shelf currents intermittently dominate the pattern of circulation within a few kilometers of the shore. Cross-shelf currents could drive spilled oil directly toward shore in some areas.[44] These currents have major importance for understanding the risk of potential spills from Santa Ynez Unit and Gato Canyon Unit, particularly if the spill were from a pipeline rupture within State waters.

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[42] Although the model physics seem to incorporate some fine scale processes (OCS Report MMS 2000-057, p. 3-4), there is no indication that the model was empirically verified at such scales in southern California waters. In any case, much of the fine scale information would be lost in the seasonal averaging.

[43] National Research Council. 1989. *The Adequacy of Environmental Information For Outer Continental Shelf Oil and Gas Decisions: Florida and California*. p. 23; (see also, Assessment of the U.S. Outer Continental Shelf Environmental Studies Program – I. Physical Oceanography, 1990, NRC.)

[44] Ohlmann, Carter, *Transport over the Inner-Shelf of the Santa Barbara Channel, Draft final report to MMS,* March 28, 2005.

Temporal variability in current patterns

Both the OSRA and GNOME modeling studies appear to oversimplify the current patterns. The OSRA studies are based on seasonally averaged, modeled ocean current fields, combined with averaged surface drifter data. As a result of the averaging, the range of variability of current patterns is greatly reduced. This is a serious error, because different current "regimes" occur during each season, and the dominant current pattern may change on time scales of days to weeks.[45]

Additionally, the GNOME studies are based on the three major characteristic flow regimes that have been identified in Scripps-MMS collaborative studies (i.e., upwelling, convergent, and relaxation regimes). These three flow patterns can clearly be identified about 60% of the time.[46] With this approach, only the conceptually idealized flow patterns are modeled. Trajectories associated with hybrid flow patterns, changing patterns, and less common patterns are not modeled. Neither the OSRA nor the GNOME study analyses storms or other conditions that could produce unusual trajectories.

Pipeline spills

Although subsea pipeline ruptures are the most likely type of oil spill from the anticipated post-suspension activities, GNOME and OSRA model only surface spills from platforms.[47] Because pipelines are closer to shore than platforms, a higher proportion of the spilled oil is likely to affect shoreline and near-shore resources. Also, subsea releases behave differently than surface spills, and require a very different modeling approach.[48] In addition, the modeling fails to consider onshore pipeline spills, which may enter marine waters and affect coastal resources.

Other weaknesses of the analysis

- **Effect of spill volume on modeled shoreline contact locations.** Because the maximum spill volume modeled was only 2,000 barrels, the GNOME model results don't provide complete information concerning the volume of oil that would contact the shore in the event of a maximum worst-case discharge.

- **Oil characteristics.** The OSRA modeling and drifter studies do not consider properties of the spilled oil, which varies considerably among reservoirs. Oil properties affect subsea plume

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[45] DEIS, Table 5.1.3.2-2, p. 5-24.

[46] DEIS, p. 4-48.

[47] See DEIS, p. 5-20. OSRA modeling of spills from several currently existing pipelines is included in the *Oil-Spill Risk Analysis* [MMS 2000-057] cited above. However, the surface spill model is used, and the modeling is not tied into the spill analysis in the DEIS or EID. The modeled spill locations are approximately 2.5 to 6.3 miles offshore, and fail to consider possible spills closer to shore, where environmental impacts would be greater.

[48] Subsea spill models are under development by MMS, and other models may be available. See: Technical Documentation for the Pipeline Oil Spill Volume Computer Model, SINTEF Report to MMS, 1/20/03. http://www.mms.gov/tarprojects/390/WCD%20Technical%20Description_Final-170203.pdf (accessed 7/8/05)

formation and the behavior of oil on the surface, such as spreading, sinking, and expansion of volume due to mousse formation.[49] It is unclear how realistically the GNOME modeling studies account for such characteristics, if they are considered at all.

- **Shoreline contact**. The OSRA model generates estimates of conditional probabilities of shoreline contact. However, these estimates are of dubious value, given that the model uses seasonal current averages, fails to include important small-scale currents, and does not account for oil characteristics or volume. The spill trajectory analysis does not adequately connect probable shoreline contact locations with presence of sensitive resources, as necessary for evaluation of impacts.

- **Uncertainty.** The trajectory modeling does not include an error analysis or discussion of model sensitivity analysis, as recommended in the National Resource Council assessments.[50]

The oil spill modeling in the EID and DEIS is over-generalized and lacks crucial information. Hence, it does not provide the information needed for a realistic appraisal of potential impacts to specific resources in the Santa Barbara Channel and Santa Maria Basin. Nor does it provide information on potential spill scenarios detailed enough to assess the effectiveness of spill response. The modeling lacks an appraisal of what resources are likely to be affected by an oil spill incident. Without this information, the Commission cannot evaluate the full range and extent of potential oil spill impacts to marine and shoreline resources.

Conclusion

The oil spill risk analysis in the EID is overly general, and lacks specific information crucial to the Commission's analysis of potential oil spill impacts on coastal resources. The Commission requested additional information from MMS regarding: 1) the worst-case discharge volumes specific to each hypothetical post-suspension development scenario, cumulative volumes for all 36 leases, and cumulative volumes for all 36 leases plus existing development; 2) spill probability analyses for each hypothetical post-suspension development scenario and a cumulative analysis for multiple spills; and 3) detailed spill trajectory analyses for each hypothetical post-suspension development scenario and cumulative for all 36 leases. Without this information, the Commission cannot evaluate the full range and extent of potential oil spill impacts to marine and shoreline resources. The Commission therefore finds it does not have sufficient information to determine whether granting the lease suspensions is consistent with CCMP policies related to: marine resources and water quality (§§30230 and 30231), environmentally sensitive habitat areas (§30240), commercial fishing (§30234.5), access and recreation (§§ 30210, 30211, 30212, and 30220), and cultural resources (§30244).

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[49] Mousse formation is the tendency of some oils to form emulsion, which can expand the spill volume by a factor of two to three, as apparently was the case for the 1997 Irene pipeline spill. Sinking may be a very important consideration for the heavier local oils.

[50] *Ibid.,* NRC, 1989, p. 24.

Prevention and Response Capability

Section 30232 of the Coastal Act requires the applicant to provide "protection against the spillage of crude oil, gas, petroleum products, or hazardous substances…" and to provide "effective containment and cleanup facilities and procedures" for accidental spills that do occur.

After the 1989 *Exxon Valdez* oil spill, the federal and California State governments imposed tough new statutory and regulatory standards for oil spill prevention and response. Under the Oil Pollution Act of 1990, the federal government agency with the primary regulatory authority over marine waters is the U.S. Coast Guard ("USCG"). The USCG also serves as the Federal On-Scene Coordinator ("FOSC") during an oil spill response. Under California's Lempert-Keene-Seastrand Oil Spill Prevention and Response Act (Cal. Gov't Code § 8670 *et seq.*), the California State government agency with the primary regulatory authority over oil spills in state marine waters is the California Department of Fish and Game's Office of Spill Prevention and Response ("OSPR"). OSPR is the State On-Scene Coordinator ("SOSC") during an oil spill response.

A Regional Response Team ("RRT") composed of representatives from the USCG, the US EPA, MMS, the California Office of Emergency Services, and OSPR oversees the development and implementation of three Area Contingency Plans for all waters offshore California. The Plans present procedures for joint response efforts, including appropriate procedures for mechanical recovery, dispersal, shoreline cleanup, protection of sensitive environmental areas, and protection, rescue, and rehabilitation of fisheries and wildlife.[51]

Oil spill prevention and response for the hypothetical post-suspension development scenarios are discussed in detail below.

Prevention

To reduce the likelihood of spills, OCS operators must comply with a multitude of oil spill prevention, environmental management, and worker safety regulations from federal, State, and local agencies. These include MMS, U.S. Office of Pipeline Safety regulations; U.S. Coast Guard Facility Response Plan regulations (33 CFR Part 154 and 155); the California Office of Spill Prevention and Response regulations (14 CCR §§ 790 –886) for oil spill contingency plans, inspections, and drills (for pipelines in state waters and onshore facilities); State Lands Commission regulations (14 CCR §§ 2000 – 2017, §§ 2300–2407) for onshore marine terminals; Coastal Commission consistency certification and permit requirements; and Santa Barbara County permit conditions for onshore facilities.

According to the EID and DEIS Appendix 5,[52] MMS prevention strategy includes regulations that require the use of best available technologies, training standards for operator personnel, and a rigorous inspection program. This strategy encourages industry to operate well-engineered facilities with good housekeeping practices, adequate equipment maintenance, and proper and safe operational procedures to reduce the likelihood of an oil spill. MMS has established

[51] US Coast Guard, California Office of Oil Spill Prevention and Response. *2000 Area Contingency Plan, Los Angeles and Long Beach.* 2000. available at http://www.uscg.mil/d11/m/rrt9web/

[52] EID p. 5.3-7, DEIS Appendix 5 p. A5-69

inspection protocols and reporting requirements designed to effect timely detection of any spills, notification of proper authorities, and initiation of cleanup. Operators are required to conduct frequent periodic inspections to determine if pollution is occurring and to report sources of pollution to MMS.

To ensure that a facility is prepared in the event that oil is spilled, MMS has a comprehensive oil spill response program.[53] In addition, MMS tests a facility operator's response, as well as its knowledge and understanding of the individual Oil Spill Response Plan through oil spill exercise programs with announced and unannounced drills each quarter. For planning purposes, MMS adheres to the requirements of the USCG's National Preparedness for Response Exercises Program.[54] Facility operators must exercise their entire response plan at least once every three years. To satisfy this triennial exercise requirement, an owner or operator must conduct the following elements of the response plan: annual spill management tabletop exercise; annual deployment exercise of spill response equipment staged at an onshore location; annual notification exercise; and semiannual deployment exercise of any response equipment which the owner or operator must maintain at the facility. [55]

The Commission notes that even with these regulations and programs in place, oil spills do still occur due to human error. MMS and other federal, State, and local regulations provide feedback mechanisms for the continual improvement of operator training programs and leak detection systems.

Hypothetical post-suspension development of the Cavern Point Unit would employ existing infrastructure, including Platform Gail and its associated pipelines. Venoco, Inc. currently operates the Cavern Point Unit infrastructure in accordance with the requirements discussed above. The Commission finds that MMS's and other applicable prevention regulations and programs provide measures for maximum feasible "protection against the spillage of crude oil, gas, petroleum products, and hazardous substance." The Commission therefore finds that granting the lease suspensions is consistent with the prevention requirements of CCMP Section 30232.

Response Technologies and Capability

Oil spill prevention measures, such as blowout protection devices and regular platform inspections, have reduced the frequency of oil spills from OCS platforms since the 1980's. However, offshore oil development in the Pacific OCS continues to pose a significant risk to the environment from oil spills.[56] Oil spill response strategies generally include: mechanical

[53] In accordance with MMS regulations 30 CFR §250.204 (b)(3) and Part 254, each of the OCS operators must have an approved oil spill response plan.

[54] USCG, National Preparedness for Response Exercise Program (PREP), August 1994. http;//www.uscg.mil/hq/g-m/nmc/response/msprep.pdf

[55] See EID page 5.3-7; DEIS Appendix 5, page A5-69.

[56] The term "risk" encompasses both the likelihood and environmental impacts of oil spills.

containment and recovery equipment, chemical dispersants, and in-situ burning. Each is discussed in more detail below.

Mechanical Containment and Recovery Equipment

According to the EID and DEIS Appendix 5,[57] operators in the Pacific OCS are required to keep sufficient equipment on or near the platforms to enable the immediate initiation of containment activities. Primary response equipment at the platforms is supplemented by onshore equipment operated by oil spill cooperatives formed by the lessees and operators.

Hypothetical post-suspension development of the Cavern Point Unit would employ existing Santa Clara Unit infrastructure, including Platform Gail and associated facilities. Venoco, Inc. currently operates Santa Clara Unit infrastructure in accordance with an existing MMS-approved Oil Spill Response Plan ("OSRP"), which incorporates the response elements discussed above, and which is updated biannually to reflect improvements in response equipment and procedures. The Commission staff reviews updated OSRPs.

At the time of the Commission's review of the consistency certifications for the installation of the Santa Clara Unit Platform Gail and its associated subsea pipelines (CC-2-86 and CC-36-86), the operator (Chevron) committed to providing 1500 feet of oil spill boom, skimmers, storage capacity to handle skimmer throughput, as well as a boom deployment boat at (or within 15-60 minutes travel time from) the platforms, for primary response within the first three hours of an oil spill. This configuration of oil spill response equipment remains on the platforms today.

For secondary response capability, Platform Gail has access to the Clean Seas inventory of vessels and equipment which includes: Mr. Clean I (stationed at Santa Barbara harbor) and Mr. Clean III (stationed at Platform Harvest), fast response vessels, and pre-staged equipment located at Morro Bay, Avila Bay, Santa Barbara Harbor, the Carpinteria Yard in the Ventura/Port Hueneme area, and at Point Mugu Navy Base.

In the 20 years since the installation of the platforms, Clean Seas has continued to upgrade and improve the containment and recovery capability of its state-of-the art response equipment to best match the characteristics of the oil produced in the offshore fields. As MMS notes,[58] the additional resources of the Marine Services Response Corporation, National Response Corporation and the USCG Oil Spill Response Team are also available to assist Clean Seas in the event of catastrophic spill.

The Commission interprets "effective containment and clean up" in CCMP Section 30232 as the ability to keep an offshore oil spill from adversely affecting the shoreline resources of California. In the consistency certifications pertaining to OCS oil and gas development projects the

[57] EID, page 5.3-7. DEIS, page A5-70.

[58] EID, page 5.3-7

Commission reviewed in the 1980's,[59] the Commission found that although the on-water oil spill containment and clean-up equipment available for response to offshore oil spills was state-of-the art, research and oil spill experience showed that its effectiveness in keeping a marine oil spill from causing significant impacts to sensitive shoreline resources was severely limited by weather, currents, and wave conditions.

Although oil spill response equipment and cleanup methods have significantly improved in the past 20 years, research and experience shows that the response capability of current state-of-the art containment and clean-up equipment continue to be very limited during conditions of rough weather and sea conditions. EPA tests have demonstrated that oil skimmers can generally only recover about 50 percent of spilled oil in calm water conditions, with decreasing effectiveness if sea conditions are rougher.[60] Booms and skimmers are also limited in their effectiveness by wave height and wind speed. According to the National Oceanic and Oceanographic Administration's ("NOAA") Office of Response and Restoration, historical data indicates that only 10-30 percent of spilled oil can be recovered by mechanical means.[61]

The lack of real-time current information can also affect the accuracy of on-water response operations. A system of buoys was deployed during the 1990s in the Santa Barbara Channel and Santa Maria Basin by Scripps Institution of Oceanography, to provide wind and current data for circulation studies. Through a cooperative agreement between MMS and Scripps, and an interagency agreement with NOAA, a monitoring array was deployed in 1999, providing real-time wind and current data. The data was made available on the internet for use in trajectory analysis during oil spill response.[62, 63] The buoys were removed in October/November, 2004, and real-time current data is no longer available. Some up-to-date oil spill response plans cite the Scripps website for access to real-time current data;[64] however no plans to resume the real-time current monitoring have been announced.

Recent ocean oil spills, even those as small as the 163-barrel Torch Platform Irene pipeline spill in 1997, have demonstrated that state-of-the-art response equipment, even under the best weather and calm-sea conditions, are not effective in keeping oil off the shoreline. Current state-of-the-art mechanical response equipment cannot effectively protect California's shoreline and marine resources from significant oil spill impacts. The Commission therefore finds that the CCMP

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[59] CC-7-83 (Platforms Harmony and Heritage), CC-12-83 (Platform Hermosa), CC-27-83 (Platform Harvest), CC-24-84 (Platform Hidalgo), and CC-36-86 (Platform Gail)

[60] Environmental Protection Agency, Summary of U.S. EPA OHMSETT Testing 1974-1979.

[61] Michel, Christopherson, Whipple, Mechanical Protection Guidelines, NOAA, USCG, Research Planning, Inc., 1994.

[62] http://ccs.ucsd.edu/research/sbcsmb/; http://ccs.ucsd.edu/research/sbcsmb/moorings/ (accessed 7/15/05)

[63] DEIS, 2001, p. 4-46 to 4-48; EID, 2005, pp. 4.5-14 and -15.

[64] e.g., Core Oil Spill Response Plan, PXP Arguello, Inc., February, 2004, Vol. 1, p. E-1.

Section 30232 standard of "effective containment and clean up" cannot be met using the on-water containment and clean-up equipment currently available to respond to marine oil spills from oil and gas exploration development offshore California.

Chemical Dispersants

The effectiveness of chemical dispersants can be limited by the characteristics of the oil found in the Pacific OCS oil reserves, as well as rough weather and sea conditions.

The Regional Response Team recently updated its policy for the use of chemical dispersants in federal offshore waters through an updated California Dispersant Plan.[65] This Plan will become part of the three California Area Contingency Plans. The California Dispersant Plan includes the results of a net environmental benefit analysis conducted for all habitats and species from the California shoreline to 200 miles offshore, and lists the oils commonly tankered into California or produced from its offshore fields. An evaluation of the "dispersibility" of these oils was included. Most oils transported into California by tanker ship have a chemical composition that might, under favorable conditions, make them candidates for chemical dispersion. However, most oils produced from California offshore fields are too heavy, persistent, and non-volatile to be suitable candidates for effective chemical dispersion with the products and resources currently available. Clean Seas has 18,000 gallons of Corexit 9527 – which is marginally effective for some of the lighter OCS crude oil – stored at its Carpinteria yard. However, Corexit 9500, which is the dispersant most appropriate for use on the heavy-grade oil that is produced from the OCS leases, is not stored in California. The closest available supply is in Texas, which could arrive in about six hours by plane. As noted in the EID, the effectiveness of dispersants decreases the longer the oil is weathered due to emulsification. To be most effective, dispersants must be applied in the first 24 hours of a spill.[66]

The California Dispersant Plan also includes: 1) a description of federal offshore waters "pre-approved" by the RRT for dispersant use, with an accompanying decision-making flowchart and resources to be used by the FOSC to assist her decision, and 2) a description of federal offshore waters for which case-by-case RRT approval must be received before the FOSC can deploy dispersants. Areas pre-approved for dispersant use include all federal waters (more than 3 miles from shore) except those areas within National Marine Sanctuaries (e.g., Channel Islands and Monterey Bay National Marine Sanctuaries). RRT approval on a case- by-case basis is required for State waters, sanctuary waters, and within 3 miles of California-Oregon or California-Mexico borders. Even in areas where the use of dispersants is approved, dispersants cannot be applied directly over marine mammals. The presence of marine mammals may therefore further limit the potential use of dispersants.

In conclusion, factors such as the heavy viscosity of the oil in the OCS reserves, weather and sea conditions at the time of the spill, proximity of marine mammals, and the RRT approval process may severely limit the effectiveness of dispersants as a spill response measure.

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[65] Region IX Regional Response Team. 2005. *Draft Final California Dispersant Plan and Federal On-Scene Coordinator (FOSC) Checklist for California Federal Offshore Waters*. 49 pp. + Appendix.

[66] EID, p. 5.3 -8

In Situ *Burning*[67]

The three California Area Contingency Plans include policies for the *in situ* burning of oil on the water's surface. RRT "pre-approval" for *in situ* burns exists for waters 35 nautical miles and further from shore. An FOSC decision to do an *in situ* burn in waters 0-35 miles from shore requires case-by-case approval from the RRT, in consultation with the regional air board and health department.

The heavy oils produced by California offshore oil fields may, if contained properly, be burnable. The physical and chemical characteristics of this oil may require the addition of accelerants to facilitate combustion, and de-emulsifiers. There is no fire boom stored in California; however a regular boom could be used sacrificially for *in situ* burning. The presence of marine mammals in the area would preclude *in situ* burning.

As is the case with the use of chemical dispersants, factors such as the heavy viscosity of the oil in Pacific OCS reserves, weather and sea conditions at the time of the spill, proximity to sensitive marine resources, and the RRT approval process may severely limit the effectiveness of *in situ* burning as a spill response measure.

Conclusion

Current state-of-the-art mechanical response equipment, chemical dispersants, and *in situ* burning cannot effectively protect California's shoreline and coastal resources from significant oil spill impacts. The Commission therefore finds that the CCMP Section 30232 standard of "effective containment and clean up" cannot be met using the oil spill response strategies currently available. The Commission finds that granting the lease suspensions is inconsistent with the oil spill response requirement of Section 30232 of the CCMP. Because Platform Gail and its associated pipelines are "coastal-dependent industrial facilities," the proposed project would presumptively be subject to analysis under Section 30260 of the Coastal Act. See Section 3.9: Coastal Dependent Industrial Facility "Override" Provision of this staff report, below.

3.1.2 Ocean Discharges

The proposed project involves development and productsion of oil and gas using only existing Santa Clara Unit infrastructure, specifically, Platform Gail and associated pipelines and facilities. No new structures would be constructed and placed either onshore or offshore. Potential impacts to marine resources and water quality could result from discharges into the marine environment associated with the drilling of production and service wells, and the operation of the platforms.

Discharges associated with future exploration, development, and production of the Cavern Point Unit could adversely affect water quality and marine resources. A variety of discharges are associated with offshore oil and gas activities, including muds and cuttings, produced water, well treatment, completion and workover fluids, deck drainage, and sanitary/domestic wastes. Drilling muds and cuttings and produced water contain heavy metals and several toxic chemicals, including arsenic, PCBs, benzene, mercury, and hexavalent chromium.

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[67] Pers. Comm., Addassi, Y.N. (CDFG-OSPR) and Faurot-Daniels, E.R. (Coastal Commission staff), July 11, 2005.

MMS estimates that over the life of the Cavern Point project, Venoco would discharge 198,000 barrels of muds, 30,000 barrels of cuttings, and 33 million barrels of produced water. Cumulatively, if all undeveloped leases are fully developed, MMS estimates 199 total wells drilled over a period of 13 years, discharging up to 2.8 million barrels of drilling muds, 627,000 barrels of cuttings, and 896 million barrels of produced water. These figures do not take into account discharges from existing platforms.

The Environmental Protection Agency ("EPA") regulates OCS oil and gas-related effluents through issuance of a National Pollutant Discharge Elimination System ("NPDES") permit. EPA NPDES permits, including those for OCS oil and gas platform discharges, are "listed" federal permits in the CCMP and subject to the federal consistency review requirements of the Coastal Zone Management Act.

Discharges associated with exploration and production wells at the Cavern Point Unit would fall under the effluent requirements of new General NPDES Permit CAG280000, which EPA submitted and the Commission concurred with on January 9, 2001, and which has been in effect since December 2004.[68] This new 5-year General NPDES permit covers discharges from *existing* OCS oil and gas platforms and any exploration activities. It imposes more stringent discharge requirements than the former NPDES permits that were in effect for platforms.

Platform Gail is currently discharging under the new General NPDES Permit CAG280000.

The new General Permit prescribes maximum annual discharge volumes for the Point Arguello Unit platforms, as described in Table 5 below:

Table 5: Maximum Annual Allowable Discharges (bbls)

Platform	Cuttings	Drilling Fluids	Excess Cement	Produced Water
Gail	28,700	49,500	2,000	4,380,000

These requirements apply to discharges from the Platform Gail, regardless of the source of the oil and gas produced by the platforms. MMS has not indicated if development of the Cavern Point Unit would cause the operator to exceed the limits set by the permit. If production of the undeveloped leases would cause Venoco to exceed the maximum allowable discharges set by EPA, Venoco would be required to apply for either an amendment to the general NPDES permit or a new individual NPDES permit from EPA covering the excess discharges. Any new individual NPDES permit for these platforms would require separate review and concurrence by the Coastal Commission under the federal consistency requirements of the CZMA.

Notwithstanding stricter effluent discharge requirements contained in the new General NPDES permit, platform operators continue to discharge toxic pollutants into the ocean from muds and

[68] Although platform operators are currently discharging under the requirements of General NPDES Permit CAG280000, the Western States Petroleum Association has challenged this permit in court. (*Western States Petroleum Association v. Nastri*, No. 04-75605 (9th Cir.))

cuttings, produced water and other wastes. In its concurrence with the new General NPDES permit (Consistency Certification CC-126-00), the Commission made clear its concern that scientific research on the effects of oil and gas wastes on marine resources and water quality is inconclusive, and that the mass of, and toxic concentrations in, projected discharges, both individually and cumulatively, may still damage the biological productivity of coastal waters. The Commission found that the discharges may, 1) reduce the long-term productivity of certain marine species to a level below that necessary to sustain healthy populations; 2) potentially contaminate or cause changes in fish species that dwell near the platforms; and 3) cause cumulatively significant adverse impacts, such as chronic sublethal effects.

The Commission therefore found in consistency certification CC-126-00 that the discharges that occur under the new NPDES permit are inconsistent with the marine resource, water quality, and cumulative impact policies of the CCMP. The Commission nevertheless applied the "override" provision of the CCMP (Coastal Act Section 30260) for coastal-dependent industrial development activities and concurred with the new General NPDES permit, finding that it met the tests of Section 30260, because: 1) alternative locations were infeasible or more environmentally damaging; 2) to do otherwise would adversely affect the public welfare; and 3) adverse environmental effects would be mitigated to the maximum extent feasible.

The Commission finds the proposed project to be inconsistent with Sections 30230 and 30231 of the Coastal Act, because the proposed project would discharge under the new NPDES permit, and such discharges are inconsistent with the marine resource, water quality and cumulative impacts policies of the CCMP. Because Platform Gail is a "coastal-dependent industrial facilities," the proposed project would presumptively be subject to analysis under Section 30260 of the Coastal Act. See Section 3.9: Coastal Dependent Industrial Facility "Override" Provision of this staff report, below.

3.2 Commercial Fishing

Section 30230 of the Coastal Act, quoted on page 23, provides for the protection of species of special economic significance. In addition, Coastal Act § 30234.5 provides:

> *The economic, commercial, and recreational importance of fishing activities shall be recognized and protected.*

Potential impacts to the commercial fishing industry from the proposed project include impacts caused by space conflicts and fishing preclusion zones from the retention of structures in the water. When the Commission originally reviewed Platform Gail, it determined that the platform and pipelines, and associated discharges, would impose a preclusion zone causing extensive impacts to commercial and recreational fishing. Platform Gail and the pipeline to Platform Grace are located within Dept. of Fish and Game Fish Blocks 684 and 685, respectively. Principal fisheries at the time of the Commission's review (i.e., 1986) included fishing for mackerel, anchovies, bonito, sole, rockfish, halibut, shark, lobster, shrimp, and sea urchins. The predominant commercial fishing gear types the Commission noted consisted of: 1) purse seine for anchovies; 2) trawl for English and petrale sole; and 3) gill net fishing for shark. Depending on weather and current conditions, the Commission determined the platform could preclude

fishing for two miles (for trawling and gill netting) to four miles (for purse seining). Among the mitigation measures Chevron agreed to address these impacts were committing to creating a fisherman's contingency fund ($250,000), an insurance trust fund ($250,000), and partial financing ($100,000) for a study to assess the cumulative impacts of OCS development on commercial fishing in the Santa Barbara Channel.

MMS notes in the EID that the area continues to be fished, and that these Fish Blocks have been fished using several gear types including: 1) purse seine for coastal pelagics such as northern anchovy and market squid; 2) trawl for spot prawns, and halibut; 3) hook and line/longline for rockfish and other rocky outcrop fish; 4) trap for crab and lobster; and 5) drift/set gillnet for halibut and white seabass. The EID further notes, based on the Dept. of Fish and Game 1999-2003 data cited, that while diving for urchins and sea cucumbers occurs within the Fish Blocks, the platform and pipelines are probably in waters too deep to affect diving.

Analyzing the project's impacts, MMS states:

> *During the suspension phase, Venoco will conduct certain in-office activities that will result in the submission of a new Exploration Plan (EP). No "on the water" activities are proposed to take place during the suspension.*
>
> *During the hypothetical post-suspension phase, production activities are anticipated to continue on the existing Platform Gail. Potential effects on commercial and recreational fishermen from hypothetical post-suspension activities are anticipated to be restricted to short-term preclusion and space-use conflicts due to vessel traffic and routine maintenance and repairs of platforms and pipeline facilities, and would be anticipated to be low. These effects would not likely increase over present levels.*
>
> *Given the anticipated use of existing Platform Gail, no additional offshore area would be precluded from fishing and no new offshore construction would occur. Also, it is unlikely that additional supply boats will be used to service the Platform Gail facilities if and when post-suspension activities occur for the Cavern Point Unit. Therefore, the development of the Cavern Point Unit would not reduce commercial or recreational boating harbor space.*
>
> *Sections 30234 and 30234.5: Findings*
>
> *Based on the above analysis, granting an SOO to Venoco for the Cavern Point Unit will be consistent to the maximum extent practicable with sections 30234 and 30234.5.*

Similar to the Commission's concerns expressed in the Marine Resources section of this staff report above, the Commission believes this response ignores the fundamental question of the continuing impact of use of the existing infrastructure on the marine environment, including continued preclusion impacts from the platform and pipelines, operational activities (drilling, crew and supply boat, and helicopter) noise, marine discharges, and extended and increased oil spill risks. Compounding these concerns for the commercial fishing industry are relatively recent efforts to develop Marine Protected Areas, including two near Platform Gail. MMS' EID notes:

> *The creation of the marine reserves establishes "safe zones" to reverse the drop over the past decade in the populations of several marine species, such as red snapper, angel sharks, and abalone that were once plentiful off the California coast. The marine reserves extend around portions of State waters surrounding the five islands that form the Channel Islands National Marine Sanctuary: Anacapa, Santa Cruz, San Miguel, Santa Rosa and Santa Barbara Islands. The new system of MPAs consists of the following (CDFG, 2002a and 2004b):*
>
> - *Ten State Marine Reserves… ([including two near Platform Gail – Scorpion (Santa Cruz Island) and Anacapa Island State Marine Reserves]… where it is unlawful to damage, take, or possess any living, geological, or cultural marine resource, except under a permit or specific authorization by the Commission for research, restoration, or monitoring purposes;*
>
> - *Painted Cave State Marine Conservation Area ([on the western and northern side of Santa Cruz Island] where only the recreational take of spiny lobster (Panulirus interruptus) and pelagic finfish is allowed; and*
>
> - *Anacapa State Marine Conservation Area [north side of Anacapa Island, adjacent to western boundary of Anacapa Island State Marine Reserve] where only the recreational take of spiny lobster (Panulirus interruptus) and pelagic finfish is allowed and commercial take of lobster is allowed on the north side of West Anacapa Island….*
>
> *The no-take areas represent approximately 132 square nautical miles, or approximately 19 percent of the State waters within the Sanctuary. The limited-take areas represent an addition 10 square nautical miles of area (CDFG, 2004c). The next phase of this project would expand the network of reserves into Federal waters lying beyond the three-mile boundary of State water that encircle each island. The full system of marine reserves would cover 322 nautical miles (426 square miles) and once adopted by the Federal government would make the largest network of marine reserves in the continental United States (CDFG, 2002b).*

Given the proximity of Platform Gail to the Scorpion and Anacapa Island MPAs, currently under consideration discussion for expansion to the six mile Sanctuary Boundary (from their current 3-mile State water boundary), and which already set aside over 20 sq. nautical miles to fishing activities, the cumulative impacts to fishing activities combined with extending the life of Platform Gail has the potential to significantly impose a preclusion zone affecting a number of fishing methods from an even larger area than the original platform. As noted above, when the Commission originally reviewed Platform Gail, it determined the platform and pipelines would impose a preclusion zone causing extensive impacts to commercial and recreational fishing and required extensive mitigation measures (some of which are listed above on page 50). The Commission determined the original Platform Gail to be inconsistent with a large number of coastal resource protection policies, including the commercial and recreational fishing policies of the Coastal Act. Retention of the platform in this location for an additional time period of time would exacerbate these conflicts by extending their duration.

If development of the Cavern Point Unit does not occur, Santa Clara Unit infrastructure is scheduled to be decommissioned in 2020-2025. As discussed in Section 1.2.1: Necessary Information above, and in Appendix B, the Commission requested information from MMS regarding the potential for the lease suspensions to extend the life of the infrastructure the Cavern Point Unit would rely on. If the proposed development would not extend the life of the platform and pipelines, then the proposed project would cause no new effects to commercial fishing different from those already analyzed by the Commission when the platforms were installed. On the other hand, extending the life of the infrastructure would cause new impacts to commercial fishing for the period that the infrastructure's life would be extended. The Commission therefore cannot determine what impacts, if any, the proposed project would have on commercial fishing without the requested information regarding a potential extension of life. MMS has not provided the Commission with this information. Without the information it has requested regarding the possible extension of life of existing platforms and other infrastructure, the Commission cannot determine whether the project under consideration would cause any impacts to the commercial fishing industry, and, if it would, the magnitude of such impacts. Thus, without an analysis of the reasonably foreseeable length of time the platform would be extended if the Cavern Point Unit is to be developed, along with updated information about the current importance of the area to the fishing industry, the Commission finds that it lacks sufficient information to determine whether the project is consistent with the commercial and recreational fishing policies (Sections 30230 and 30234.5) of the Coastal Act.

3.3 Scenic, Visual, and Recreational Impacts

Coastal Act § 30251 provides:

> *The scenic and visual qualities of coastal areas shall be considered and protected as a resource of public importance. Permitted development shall be sited and designed to protect views to and along the ocean and scenic coastal areas, to minimize the alteration of natural land forms, to be visually compatible with the character of the surrounding areas, and where feasible, to restore and enhance visual quality in visually degraded areas. New development in highly scenic areas such as those designated in the California Coastline Preservation and Recreation Plan prepared by the Department of Parks and Recreation and by local government shall be subordinate to the character of the setting.*

Coastal Act § 30213 provides:

> *Lower cost visitor and recreational facilities shall be protected, encouraged, and, where feasible, provided. Developments providing public recreational opportunities are preferred.*

MMS states:

> *During the suspension phase, Venoco will conduct certain in-office activities that will result in the submission of a new Exploration Plan (EP). No "on the water" activities are proposed to take place during the suspension.*
>
> *Hypothetical post-suspension activities would not include any new pipelines or platforms. Existing regulatory requirements and mitigation measures for operation of the facilities*

> *associated with Platform Gail would remain in effect. Since the Cavern Point Unit would utilize these existing offshore and onshore OCS related facilities, no new effects on public access …and recreation… would occur.*
>
> *Based upon the above, granting an SOO to Venoco for the Cavern Point Unit will be consistent to the maximum extent practicable with policies related to public access…and recreation….*

In its original review of Platform Gail, the Commission found the platform posed extensive visual and recreational degradation in a highly scenic area, most particularly on views from the Channel Islands National Park. The Commission also noted the platform needed to be more conspicuous than other platforms due to its close proximity to the vessel traffic lanes. The Commission determined the original Platform Gail to be inconsistent with the visual and recreational policies (including Section 30251, 30210 and 30221) of the Coastal Act. As a coastal-dependent industrial facility, Platform Gail was eligible under an applicable provision of the CCMP (Coastal Act Section 30260) to be considered for an "override" (i.e., an overall finding of consistency with the CCMP) of the inconsistencies with policies 30251, 30210, and 30221 of the Coastal Act that the Commission found that facility to be subject. Application of the "override" provisions of Section 30260 to resolve these inconsistencies is implicit in the Commission's entry into the litigation settlement agreement.

Nevertheless, at this time the Commission finds that retention of Platform Gail in this location for a period of time in excess of that originally contemplated for that facility would exacerbate the conflicts with the above-referenced policies of the CCMP/Coastal Act, by extending their duration. If the proposed development would not extend the life of the platform, then the proposed project would cause no new effects on views and recreation different from those already analyzed by the Commission when the platform was installed. On the other hand, extending the life of the infrastructure would cause new impacts on views and recreation for the period that the Platform's life would be extended. While MMS maintains that developing the Cavern Point Unit would occur using existing infrastructure, without a clear analysis of the extent to which the platform would be extended, as discussed on pages 52-53 (Commercial Fishing Section above), the Commission is also unable to assess the reasonably foreseeable visual and recreational impacts of extending the platform life. The Commission therefore finds that it lacks sufficient information to determine the project's consistency with the visual and recreational resource protection policies (Section 30251 and 30213) of the Coastal Act.

3.4 Hazards

Coastal Act §30253(2) provides that:

> *New development shall:*
>
> *(2) Assure stability and structural integrity, and neither create nor contribute significantly to erosion, geologic instability, or destruction of the site or surrounding area or in any way require the construction of protective devices that would substantially alter natural landforms along bluffs and cliffs.*

Coastal Act §30262(a)(1) provides, in part:

> *a) Oil and gas development shall be permitted in accordance with Section 30260, if the following conditions are met:*
>
> *(1) The development is performed safely and consistent with the geologic conditions of the well site.*

When the Commission was originally considering Platform Gail, it noted several geologic hazards that needed to be addressed. The platform itself was proposed above a buried ancient slide, and the pipelines to Platform Grace crossed submarine landslide areas to the north and west of the platform. To address the platform slide, Chevron installed deep piles well below the unstable area. In addition, the Commission requested, and Chevron agreed, to address platform integrity, which could be compromised by transoceanic transportation of the platform (from Asia), through the placement and testing of additional platform features that could be disassembled and tested to determine the platform's strength at the time of installation. To address concerns over the pipeline crossing of unstable areas (Exhibit 6), the Commission noted:

> *Approximately 18,000 feet northwest of Gail, the [pipeline] corridor turns north and crosses the northern slope area to connect with Platform Grace. Crossing the northern slope area at this location was necessary to avoid the numerous submarine slumps located on the eastern portion of the northern slope area. Approximately 3,000 feet of the corridor overlies a buried ancient slide deposit at the Platform Gail site vicinity. A pre-installation site specific geophysical survey of the pipeline routes within the 1,000 foot corridor will identify site specific areas of potential seafloor instability to be avoided, if any. Placing the pipelines directly on the seafloor reduces potential soil loading caused by slumps and enables the line to deform without rupturing. In addition, earthquake loads are less on exposed pipelines because forces are proportional to the amount of soil restraint around the pipeline. Surface sediments on the seafloor within the pipeline corridor consist of silty sand to sandy silt and should adequately support the pipelines.*

While the Commission determined at the time that Chevron had adequately addressed the geologic hazards for the foreseeable life of the platform, given these geologic hazards, extending the life of the platform raises the need for information concerning the platform's continued structural integrity. Moreover, since MMS regularly tests the facilities, it should have readily available information about whether the pipeline remains on the seafloor as expected, and/or whether any changes to the above-noted geologic concerns have appreciably changed over the past two decades. Accordingly, the Commission staff requested that MMS provide a reassessment of the hazards, including information about whether any additional studies/mapping have occurred since 1986 further defining the landslide, whether the landslide poses any geologic risks to the pipeline between Platforms Gail and Grace, whether production from the Sockeye Field from which Platform Gail is producing has had any effect on the landslide, whether the pipeline has been buried under or suspended over seafloor sediments, and, in general, whether any new information has been developed since 1986 that could shed new light on the size and potential effects of the landslide. MMS responded:

> *The proposed activity subject to this consistency determination is the granting, by the Minerals Management Service, of a Suspension of Operations (SOO) for the Cavern Point Unit in response to a request filed by the operator of the Cavern Point Unit under the provisions of the Outer Continental Shelf Lands Act (OCSLA), 43 U.S.C. 1334(a)(1). The detailed information requested here is appropriately addressed in EP's and DPP's. If and when the operator of the Cavern Point Unit submits a new EP, specific details regarding the exploration of the Cavern Point Unit will be provided to the State by the operator in the operator's consistency certification.*

MMS' response also included the statement that it regularly tests the platforms and pipelines pursuant to applicable federal regulations (MMS cited 30 CFR 102 250.900 through 914, and API RP 2A-WSD, for platforms, and 30 CFR 250.1000-1019, for pipelines), and that:

> *(1) These platforms have been frequently inspected by MMS personnel to ensure that they are safe and being properly maintained.*
>
> *(2) Any future projects (such as Cavern Point) or platform modifications, including significant structural load changes, involving these platforms would be reviewed on a case-by-case basis by MMS to ensure that they can meet the demands of any future proposed operations per MMS regulations.*
>
> *(3) Platforms Gail and Grace have complied with the… [above] requirements. They have had annual topsides inspections and underwater jacket inspections every 5 years per MMS requirements. The platforms have been maintained and will continue be required to be maintained per MMS requirements. If significant problems are identified as a result of future inspections, then the operator would be required to be correct those problems per MMS regulations. The underwater jacket inspections for Platforms Gail and Grace were last conducted in 2001 and the platforms were found to be structurally sound. The topsides for these platforms have been structurally inspected annually per MMS requirements and are structurally sound.*
>
> *(4) 'The Platform Gail to Platform Grace Pipelines are internally inspected every 3 years. The Platform Grace to shore pipelines are inspected every 2 years. All the pipelines meet MMS requirements. The near shore portion of the Platform Grace to shore oil pipeline was remediated in 2001 to stabilize the pipeline. In addition, the Platform Grace to shore oil pipeline was repaired in 2004 in the near shore area and we do not foresee any additional remediation needed at this time. All the Platform Gail to Platform Grace and Platform Grace to shore pipelines are externally inspected (including cathodic protection) every other year. All the pipelines are regularly reviewed.*
>
> *(5) Platforms Gail and Grace and the associated pipelines are structurally sound according to our records and the results of the inspections. We believe that if they are properly maintained, they have many more years of remaining life.*

Upon receipt of these responses, on June 29, 2005, the Commission staff contacted MMS by telephone (pers. conversation, Maurice Hill) and requested a copy of the most recent tests MMS has conducted on Platform Gail, and on the pipelines from Platform Gail to Grace and from Grace to shore. MMS informed the Commission staff that it was unwilling to provide this information, and that the information was not relevant to the question of whether an OCS lease suspension is consistent with the applicable enforceable policies of the CCMP. The Commission disagrees, and finds that, given the geologic hazards described above, the results from the tests MMS has conducted on pipeline and platform integrity are necessary to enable the Commission to determine the adequacy of existing infrastructure to handle the longer oil and gas development scenarios inherent in developing new units such as Cavern Point, and to determine whether the reasonably foreseeable effects from extending the life of the platform and pipelines would be consistent with the geologic hazards policies (Sections 30253 and 30262) of the CCMP.

With respect to potential onshore hazards, MMS maintains that no new infrastructure modifications would be needed, or if they are, existing regulatory processes can adequately address any issue raised. Given the age of the Carpinteria facility, the Commission believes further analysis is needed at this stage in the process. Accordingly, in addition to the above questions about offshore infrastructure, the Commission staff also requested information on the ability of onshore facilities to process Cavern Point petroleum hydrocarbons within the City of Carpinteria, to enable a determination of, among other things, whether that onshore facility remains suitable, or if an increased risk to public safety makes other locations more appropriate. The Commission notes that gas processing was originally proposed to occur at Platform Grace, in order to avoid the need for the Carpinteria onshore facility to exceed permitted throughput limits. Part of this concern was based on public safety issues, and the size of the safety hazard zone, as the onshore facility is surrounded by residential and commercial development and other public facilities. With Platform Grace now no longer operating, it is unclear whether offshore processing occurs at Platform Gail, and what, if any, additional oil and gas development demands would be on the onshore facility. Without an assessment of the ability of the existing onshore facilities to process Cavern Point petroleum hydrocarbons, the Commission cannot evaluate whether the project would increase public safety concerns and geologic risks, and thus whether the reasonably foreseeable onshore effects from developing the Cavern Point Unit would be consistent with Sections 30253(2) and 30262(a)(1) of the Coastal Act.

3.5 Air Quality

The air quality policy of the CCMP (Coastal Act § 30253(3)) states:

> *New development shall:*
>
> *(3) Be consistent with the requirements imposed by an air pollution control district or the State Air Resources Control Board as to each particular development.*

Section 30414 provides:

> *(a) The State Air Resources Board and air pollution control districts established pursuant to state law and consistent with requirements of federal law are the principal public agencies responsible for the establishment of ambient air quality and emission standards and air pollution control programs. The provisions of this division do not authorize the commission or any local government to establish any ambient air quality standard or emission standard, air pollution control program or facility, or to modify any ambient air quality standard, emission standard, or air pollution control program or facility which has been established by the state board or by an air pollution control district.*
>
> *(b) Any provision of any certified local coastal program which establishes or modifies any ambient air quality standard, any emission standard, any air pollution control program or facility shall be inoperative.*
>
> *(c) The State Air Resources Board and any air pollution control district may recommend ways in which actions of the commission or any local government can complement or assist in the implementation of established air quality programs.*

In addition, Section 307(f) of the federal CZMA specifically incorporates the Clean Air Act into the California Coastal Management Program (CCMP). Under the Clean Air Act, the federal government has established ambient air quality standards to protect public health (primary standards) and secondary standards to protect public welfare. The State of California has established separate, more stringent ambient air quality standards to protect human health and welfare. National and California standards have been established for ozone, carbon monoxide, nitrogen dioxide, sulfur dioxide, suspended particulate matter 10 microns (PM_{10}), suspended particulate matter ($PM_{2.5}$) and lead. In addition, California has adopted standards for sulfates, hydrogen sulfide, vinyl chloride, and visibility reducing particles.

Under federal standards, Ventura County is in "Severe Nonattainment"[69] of the 1-hour ozone standard, and in "Moderate Nonattainment"[70] of the 1-hour ozone standard. Under federal standards, Ventura County is in Severe Non-attainment area for the 1-hour ozone standard, and in Nonattainment for both the PM_{10} and $PM_{2.5}$ standards.

The 1990 Clean Air Act Amendments (Section 328) transferred to the Environmental Protection Agency ("EPA") authority for air quality on the OCS. Federal (EPA) regulations enacted in 1992 require OCS sources to comply with applicable onshore air quality rules in the corresponding onshore area. In 1993, the EPA delegated authority to the Ventura County Air Pollution Control District ("VCAPCD") to implement and enforce the federal air requirements of 40 CFR Part 55.

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[69] "Severe" means that the area has 15 years from original designation date 1990 (i.e. until 2005) to meet attainment status.
[70] "Moderate" means that the area has until Year 2010 to meet attainment status.

Federal regulations contained in 30 CFR 250.204(b)(14), 250.303, and 250.304 specifically apply to air emissions from OCS oil and gas facilities. Regulations at 30 CFR 250.204(b)(14) require an operator to supply detailed information to MMS when the operator applies for a new or amended Development and Production Plan, including:

- Projected emissions for each proposed or modified facility for each year of operation;
- The model(s) used to determine the effect on the onshore air quality of emissions from each facility and the result obtained through the use of the model(s);
- The air quality status of any onshore area where the air quality is significantly affected by projected emissions from each facility proposed in the plan;
- The emission-reduction controls available to reduce emissions, including the source, emission-reduction control technology, reductions to be achieved, and monitoring system.

Federal regulations at 30 CFR 250.303 set significance standards for carbon monoxide, total suspended particles, sulfur dioxide, nitrogen oxides and volatile organic compounds for OCS facilities. Facilities that significantly affect air quality in a nonattainment area are required to fully reduce emissions (through Best Available Control Technology ("BACT"), additional emissions controls, or offsets), while facilities causing significant impacts in attainment or unclassifiable areas are required to reduce emissions through BACT. These regulations also prohibit any air pollutant to exceed the concentration permitted under the national secondary ambient air quality standard or the national primary air quality standard, whichever is lowest.

Regulations at 30 CFR 250.304 allow the State Air Board to review existing facilities, such as Platform Gail, to determine if those facilities are contributing significantly to onshore ambient air pollutant concentrations. If a facility is significantly affecting the air quality of the onshore area, emissions must be reduced through the application of BACT.

Platform Gail operates under an existing VCAPCD permit. Additional air emissions from Platform Gail expected from any additional exploration and production development of the Cavern Point Unit would need to be consistent with the rules and requirements of VCAPCD. MMS' EID and its consistency determination for the Cavern Point Unit do not analyze the consistency of any future development with the standards of the VCAPCD. Nor do they reflect in their analyses of future conditions the fact that Ventura County's nonattainment problems are more severe than Santa Barbara County's. Despite these omissions, all exploration and production drilling will be subject to the VCAPCD's permit process, including requiring Permits Construct and Operate, application of Best Available Control Technology ("BACT"), and, where applicable, emission offset requirements. Thus, because Sections 30253 and 30414 of the Coastal Act require the Commission to rely on the applicable rules of the VCAPCD for air quality measures, and because any future development will require permits from the VCAPCD, the Commission therefore that any reasonably foreseeable activities at the Cavern Point Unit would be carried out in a manner consistent with the rules and requirements of the VCAPCD and, therefore, also in a manner consistent with the air quality policy of the CCMP (Coastal Act Section 30253(3)).

3.6 Consolidation of Oil and Gas Development

The CCMP requires that oil and gas development facilities be consolidated to the maximum extent feasible.

Section 30250, provides, in relevant part:

> *(a) New residential, commercial, or industrial development, except as otherwise provided in this division, shall be located within, contiguous with, or in close proximity to, existing developed areas able to accommodate it…*

More specifically, Section 30262(a)(2) requires the consolidation of oil and gas development, as provided in the following relevant part:

> *a) Oil and gas development shall be permitted… if the following conditions are met:…*
>
> *(2) New or expanded facilities related to that development are consolidated, to the maximum extent feasible and legally permissible, unless consolidation will have adverse environmental consequences and will not significantly reduce the number of producing wells, support facilities, or sites required to produce the reservoir economically and with minimal environmental impacts…*

The post-suspension development scenario for the Cavern Point Unit provides that the operator would produce the oil and gas resources of the these units using existing Santa Clara Unit Platform Gail and associated subsea pipelines, and the onshore Carpinteria processing facility. According to MMS, no new platforms, subsea pipelines, or onshore facilities or pipelines are proposed for construction.

The Commission finds that the proposed post-suspension development scenario for the Cavern Point Unit provides for the consolidation of new oil and gas development, and would, therefore, be consistent with the consolidation requirements contained in Sections 30250 and 30262 of the CCMP.

3.7 Coastal-Dependent Industrial Facility "Override" Provision

Coastal Act §30101 defines a coastal-dependent development or use as that which "requires a site on or adjacent to the sea to be able to function at all." Ports, commercial fishing facilities, and offshore oil and gas platforms are coastal-dependent development types that the Coastal Act gives priority over types of development on or near the shoreline. Coastal Act §30001.2 finds that notwithstanding the environmental effects of offshore petroleum and gas development, the location of such developments in the coastal zone may be necessary. Consequently, Coastal Act §30260 provides for special consideration of coastal-dependent industrial facilities that may otherwise be found inconsistent with the Coastal Act's Chapter 3 policies. Section 30260 is relevant to the Commission's review of suspensions of OCS oil and gas leases because such suspensions, if granted, would lead to or result in the construction of new, or new use of existing industrial facilities that are coastal-dependent as discussed in Section 2.3: Project Description above. The hypothetical

post-suspension development scenario reviewed in this report involves the use of "coastal-dependent industrial facilities," including Platform Gail and associated pipelines (i.e., from Platform Gail to Platform Grace, and from Platform Grace to shore).

Coastal-dependent industrial facilities must be evaluated under all applicable policies and standards contained in Chapter 3. If the proposed project is inconsistent with any Chapter 3 policy, section 30260 provides for approval of the coastal-dependent industrial development, notwithstanding such inconsistencies of the development. Coastal Act §30260 specifically states:

> *Coastal-dependent industrial facilities shall be encouraged to locate or expand within existing sites and shall be permitted reasonable long-term growth where consistent with this division. However, where new or expanded coastal-dependent industrial facilities cannot feasibly be accommodated consistent other policies of this division, they may nonetheless be permitted in accordance with this section and Sections 30261 and 30262 if (1) alternative locations are infeasible or more environmentally damaging; (2) to do otherwise would adversely affect the public welfare; and (3) adverse environmental effects are mitigated to the maximum extent feasible.*

As described in Section 3.1: Marine Resources and Water Quality of this report, the proposed project does not meet the standards of Coastal Act §30230 and 30231, due to the potential for significant adverse individual and cumulative marine resource and water quality impacts caused by platform discharges. The proposed project also does not meet the oil spill response requirement of §30232 of the Coastal Act, because current state-of-the-art mechanical response equipment, chemical dispersants, and *in situ* burning cannot effectively protect California's shoreline and marine resources from significant oil spill impacts. Since the project qualifies as a "coastal-dependent industrial facility" the Commission may nevertheless approve the project if the three requirements of §30260 can be met: 1) alternative locations are infeasible or more environmentally damaging; 2) to do otherwise would adversely affect the public welfare; and 3) adverse environmental effects are mitigated to the maximum extent feasible.

The second test of 30260 states that coastal-dependent industrial development may be permitted if to do otherwise would adversely affect the public welfare. In previous sections of this report, the Commission has found that it is unable to determine whether or not the proposed project is consistent with the resource protection policies of the Coastal Act/CCMP, because it lacks the information necessary to make that determination. Specifically, the Commission cannot determine what environmental impacts the proposed project may cause, as follows:

- Impacts to marine resources, water quality, environmentally sensitive habitat areas, recreation, public access, visual resources, and commercial fishing due to potential oil spills;
- Safety impacts due to potentially unstable platforms and pipelines;
- Impacts to commercial fishing, visual resources, and safety impacts due to the possibility that the life of the platforms and other facilities will be extended.

Without a detailed assessment of the project's potential environmental impacts, the Commission cannot make a determination about whether or not the public welfare would be adversely affected if the project is not permitted. The Commission is therefore unable to determine

whether the proposed project should be permitted because to do otherwise would adversely affect the public welfare. Because the Commission is unable to determine whether the proposed project meets, at least, the second test of §30260, it is unable to analyze the proposed project for consistency with §30260 of the Coastal Act.